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## Original Articles

# THE PROBABLE MECHANISM OF BODY DEFENSE IN INFECTIONS

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I would emphasize, in the beginning, the fact that my conclusions in this paper are based almost wholly upon clinical experience and not upon laboratory tests.

My object in submitting these thoughts is twofold: First, to show what help to a scientific basis for osteopathy may lie in a large series of cases of any particular disease carefully observed and intelligently reported; and, second, to show the need of *physiological* experiments such as we hope soon to undertake in the A. T. Still Research Institute. Incidentally, I may add that to me personally this work has been my professional salvation; not in a financial way, but in the development of my conception of the powers and scope of osteopathic principles in the maintenance and restoration of health.

In 1904 I appeared before this Association with a paper on "Pulmonary Tuberculosis." My researches in preparing that paper showed the then prevailing conception of the osteopathic etiology of pulmonary tuberculosis to be about this: That a deflected or depressed rib or group of ribs produced by pressure the pathological area on the lung; that the osteopathic treatment should aim specifically at the removal of this pressure.

In examining a number of cases I made two discoveries; that single costal lesions had only rarely any anatomical connection with the pathological spot on the lung, and that group costal lesions appeared only in advanced cases and were not always present even in cases of hopelessly advanced pathological conditions. When single and group costal lesions seemed to fade as etiological factors, I began to search for osseous deviations present in incipient as well as in advanced tuberculosis of the lung.

My clinical findings were reported to this Association at the 1907 meeting. Then Dr. Herman F. Goetz, by the aid of his spinograph applied to the patient presented there, confirmed my theory the osteopathic lesion in pulmonary tuberculosis consists of posterior position of the upper dorsal vertebrae. Further application of Goetz's spinograph in my work has shown the correctness of my clinical findings.

Not only is this lesion in practically every case, but I find that treatment directed toward the removal of this lesion results in the most favorable outcome yet shown by any method of treatment. In this respect I have the support of Dr. Carl P. McConnell, whose patient I presented at the 1911 meeting of this Association.

Further examinations and observations made since 1907 have led me to narrow the limit of my lesion from the fourth to the eighth instead of to the tenth dorsal. And it is possible that laboratory experiments may enable us to confine the specific osteopathic lesion in this disease to the fifth dorsal. And it is further possible that research may show us that the same mechanism involved in the specific lesion of tuberculosis will furnish us a

means of awakening the body defense against all forms of bacterio-pathogenic diseases.

All diseases of bacterial origin overcome the body by a combination of two effects; the important body functions are overpowered by the toxines elaborated by the germ, or else the pathogenic destruction of tissue plus the toxines of tissue-waste impair normal body functions. Diphtheria is an example of the first class, while tuberculosis ilustrates the second. But whichever class we attempt to reach osteopathically, we find ourselves confronted with the same physiological problems; to wit: the elimination or neutralization of bacterial and tissue toxines, the inhibition of bacterial propagation, the restoration of destroyed tissue.

In order to understand how these problems of elimination, inhibition and restoration are to be met, we must take a leaf from the note book of our scientific medical friends. To begin with the last problem, that of restoration of destroyed or impaired tissue, our medical friends admit our osteopathic contentions that general body conditions, that is, the forces inherent in the body itself must meet this problem. They seem to think that neutralization or elimination of toxic products as well as inhibition of bacterial propagation can be met by forces generated outside of the body.

These forces are grouped by medical scientists under the general head of *vaccines*. Vaccines, through various technical procedures, are derived from the bacterial organism producing the disease, and injected subcutaneously into the blood stream of the patient. However, in typhoid fever, Wright seems to think he has a vaccine in *ricin*, an extract of the castor bean. This divergence in source of two vaccines, wherein a vegetable extract and bacillary products come in the same category, calls for a definition of a vaccine, which may be defined as *any substance capable of raising the resistance of the body to bacterial invasion.*

Metchnikoff has shown the function of white blood cells in caring for foreign particles in the body. In 1903 Wright gave us his method of measuring the ability of the cells to care for bacteria. He proved that in the blood stream there is a chemical compound which prepares the germ for destruction by the blood cells. This substance he calls opsonin. Let us get this idea firmly fixed in our minds, that opsonin is not a property of vaccines, that vaccine substances do nothing but stimulate the flow of opsonin. The source of opsonin, according to most authorities on the subject, is unknown. But Sajous, in 1909, tried to establish the identity of opsonin and his secretion of the adrenal system. Lately, however, Sajous' claims are being credited by other observers. So it is well for us to examine a little closely the mechanism of the adrenal system.

Sajous' experiments tend to show the adrenals under the control of the pituitary body. From the pituitary the nerve supply runs down the cord to the fifth dorsal segment, where it joins the sympathetics to the adrenal glands.

Personally, I am not willing to accept the identity of adrenal secretion and opsonin. I believe opsonin to be a pancreatic ferment. But for the sake of definiteness in illustrating the mechanism of the body defense in infections, we may accept Sajous' theory. As stated previously, the adrenal nerve control comes from the pituitary, down the cord to the splanchnics and thence to the adrenal glands, leaving the cord at the fifth dorsal. How could we have a more definite mechanism for reaching the nerve supply to this opsonin-producing organ, the adrenals, than is here established by Sajous? A lesion of the fifth dorsal if corrected would afford specific treatment beyond the dreams of the advocates of vaccine therapy.

If, however, the pancreas and not the adrenals prove to be the site of this opsonin factory, we still have left the possibility of a definite mechanism of

body defense in infection. It remains to us to discover the nerve control and the specific lesion involved. But such are the problems for us to solve, and by the solution of such problems we become a school of scientific attainments, a method of practice with definite, positive, specific efforts and results.

There remains yet to discuss the neutralization or elimination of bacterial and tissue toxines. I regret to note in our profession today some advocates of antitoxine treatment in at least one disease, diphtheria. So far as I know, no school of medicine has yet evolved any method specific in its ability to rid the body of tissue wastes. Bacterial wastes are supposed to be neutralized by diphtheretic antitoxines. A discussion of this measure involves Ehrlich's "side-chain" theory, which can best be explained by looking at our defensive compound opsonin as an integral material part of the blood cell, and at the bacterial toxine as a substance having a definite form or shape. The blood cell throws opsonin into the blood stream, according to this theory, in the shape of *receptors* which fit into the toxic product something like a tooth into its socket. Were the defensive cell particles or receptors not thrown into the blood stream, free from the parent cell, then the toxine must find its complement on the body of the cell whereat the cell itself becomes impaired by the toxine. The object of the horse-serum or antitoxine of diphtheria is to supply, from sources outside of the body, receptors for the toxines generated in the body by the diphtheria bacteria.

I ask your consideration of a few scientific facts in this connection. It is a known and admitted fact that the corpuscles of horse blood are haemolytic in man. What assurance have we that a receptor, which must from its very nature be an integral part of this horse cell, will fit mechanically or chemically the diphtheretic toxine manufactured by a diphtheretic bacillus in the human body?

We know, further, that bacilli through change of media change their inherent vital characteristics. If horse blood manufactures receptors to meet the diphtheretic toxines made in the medium of horse's blood, do we know that this horse receptor complements the toxine produced by this bacillus made in the medium of the human body?

We do not know as a scientific fact that horse serum containing the diphtheretic receptors still retains enough of the inherent characteristic properties of the horse to prevent the human cell from throwing off opsonin to meet the other bacilli that infect the human body. We know that horse serum in diphtheretic antitoxine destroys the human blood corpuscles and leaves the human body anemic. And this anemia actually predisposes the body to bacterial invasion! From every consideration it would seem that both vaccines and antitoxines are no more than opsonin purgatives applied to blood cells. In short, through vaccine and antitoxine we have abandoned the old macroscopically applied therapeutics, and today we would administer drug compounds with the point of a needle and watch for their results at the point of a microscope.

There can be no more need for an opsonin-purgative administered to microscopic cells than there is for a bile-purgative administered to a macroscopic liver. He who applies the needle of the one is in a fair way to urge the pill of the other. That tenet of our science which declares the inherent forces of the body to be able, under the environment of perfect diet, perfect hygiene and perfect mechanism, to manufacture its own necessary chemical compounds, to my mind, covers all the possible conditions of bacterial pathogenicity.

If the disturbed mechanism lies along the pituitary-adrenal nerve, we osteopaths must seek to correct or influence the flow of the body-defensive fluids by specific work at the fifth dorsal. If, however, the defensive opsonin is the product of the pancreas, or of some as yet unidenti-

fied organ, we have every reason to believe from clinical evidence that the osteopathic control of its function lies in the mid-dorsal area.

At least, such is my conclusion. What answer laboratory experiments may give to this problem of mechanism of the body-defense in infection rests with our friend Dr. Deason and his corps of laboratory workers in the A. T. Still Research Institute.

Legal Bldg.

## DISCUSSION

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Dr. Meacham has for several years been doing just the kind of research work that every osteopathic physician should be doing, viz.: The careful observation and collection of case reports which will in time serve to build reliable statistical evidence of the value of our method of therapy. During the past four years I have had occasion to do some original experimental work concerning the relation of interosseous lesions to body infections. I have never published my findings in these experiments because I had not enough positive information to enable me to make a detailed report and until I have the positive evidence nothing will be published.

Experimental work is necessarily slow and failures are many. A comparatively very small amount of the work done by any honest original worker is ever published because he must do so much work that counts for nothing other than to put him on the right path and even then it often happens that the supposedly right track terminates in a blind trail after many months or even years of hard work. The experimentor so often makes a fatal mistake by reporting on a series of work too soon. Such was the mistake of Dr. Flexner in reporting a cure for cerebrospinal meningitis. Perhaps nothing was more advertised that this "wonderful treatment" and perhaps nothing is farther from being reliable therapeutically. Let us hope that the workers in The A. T. Still Research Institute will be more careful than to report such erroneous results. It may be quite a while before we have anything to report, but when a report is made, let us hope that it may be reliable. I think our reports will be reliable because I believe that osteopathy is founded upon fundamentally scientific principles which can be proven to be correct by original experimentation and I believe that our workers have the ability to accomplish this end.

The question of the mechanism of body defense in infections has probably been the greatest problem before all schools of the healing art since establishment of the germ theory of disease. This subject has received more attention from original investigators in the medical schools and universities than any other problem during the past twenty years and yet comparatively very little has been accomplished. I doubt if a majority of the better educated medical physicians would claim that a reliable treatment in serum therapy has been found for more than half a dozen infectious diseases.

The normal body is possessed of a natural general and specific resistance to bacterial infection and under ordinary conditions will resist the attack of invading bacteria and their toxins. Every tissue cell is germicidal and all body fluids are antiseptic to all bacterial toxins. Statements to this effect may be found in all modern texts on bacteriology and are equivalent to Dr. Still's statement made many years ago when he said that the body has within it the necessary factors for body defense.

In the consideration of the question of the mechanism of body defense in infections, it would seem well to observe some of the things which reduce resistance and render the animal more susceptible to infection. If these factors can be known and if we can find a method by means of which this reduced resistance can be prevented or corrected and a

method by means of which the normal resistance can be restored, then surely we have found a scientific treatment for infectious diseases.

Of the many ways in which normal body resistance may be reduced, the following seem to be of greatest importance: First, the immediate effects of structural lesions. As evidenced by the fact that structural lesions to decrease resistance we refer first to our own experience in finding such lesions in practically every case of acute disease. Experimental research on this point has shown the following: First, that lesions produced artificially in normal animals reduce the normal resistance of these animals and render them more susceptible to infection. In our experimental work this has been repeatedly demonstrated on dogs and monkeys. As an example I cite the case of a monkey in one of our series of experiment which had been in perfect condition for more than three months and which died from pneumonia three days after lesioning, while several other unlesioned monkeys kept under exactly the same environment in the same room remained normal. I could give many other examples similar to this and I am sure that most of you have observed similar reactions in your practice. On the other hand. we have evidence, both clinical and experimental, to show that the resistance of an animal can be increased by osteopathic therapy. The shorter course of most fevers, the infrequent occurence or total absence of complications and sequelae in all infectious diseases, the relief of nervous excitement and the frequent relief of pain and other distressing symptoms when the proper osteopathic treatment is given is ample clinical evidence of the superior value of osteopathic therapy. Dr. Geo. Laughlin has so often impressed upon us the fact that a very important function of osteopathic treatment is that it makes the patient feel better and allows him to rest and this is cerainly an important point. Dr. Geo. Still has interestingly observed that operated cases show fewer nervous symptoms and that recovery is more rapid when treated osteopathically. We have the results of Dr. Whiting's most excellent work in original research in which he has shown by the use of the opsonic index that osteopathic treatment actually increases body resistance. In our own experimental work we have observed that those animals treated osteopathically were less susceptible to infections common to laboratory animals, and that osteopathic treatment is highly efficacious in animals affected with pneumonia, tuberculosis, influenza and other similar infections.

Deficient elimination is a second and most important factor in causing reduced resistance to infection. That structural lesions either directly or indirectly tend to reduce elimination we have ample evidence, but the lesion is not in itself the only cause. It has, however, been most positively shown clinically and experimentally that we can increase elimination by osteopathic means. The results of our recent experimental work (Series No. 16 published in the Journal of the American Osteopathic Association, March, 1913), in which it has been shown that we can increase the flow of urine from the kidneys from ten per cent. to more than one hundred per cent. and in this way reduce the fluid content of the body and thus reduce the body toxin content, is evidence of this fact.

The efficiency of this method has been tested on human individuals and has been found to be of much value in the treatment of infectious fevers. Increase and normalize elimination, then, by way of the kidneys, alimentary canal, skin and lungs (this can all be done osteopathically), and we have the key to a most important part of the treatment of any infection because in this way we can reduce the body toxin content. A most valuable point in this method of therapy is the fact that we can reduce the toxin content of the body fluids without in any way causing a further reduction of the resistance of the patient and without the

addition of any substance to the body fluids which might be toxic to the patient. Dr. Meacham has explained why foreign sera are toxic to the human. An antitoxin or other serum may often be tolerated by an animal of normal resistance and yet be highly injurious or even fatal to a human while suffering from a reduced resistance such as obtains in patients affected with an acute fever. This is a possible explanation of the seeming paradox that serums which may be successfully used in laboratory animals are not practical in the treatment of acute diseases in the human. It also explains why serums should be given early in the course of a disease or not at all. If given early in the course of a disease the body resistance is usually sufficient to counteract the toxic effect of the antitoxin and prevent the evil which might otherwise follow.

A third way in which normal body resistance may be decreased is by deficient nutrition. That body nutrition is reduced by structural lesions of long standing is probably a common observation of all osteopathic physicians. Dr. Meacham has very interestingly pointed out from his clinical observations how lesions of the mid- and upper dorsal regions may so effect the normal functions of the pancreas, intestines, liver and other organs as to cause a perversion of function of these organs and how the lack of their secretions, normal in quality and quantity, could cause a reduced nutrition and therefore a reduced resistance. It is interesting to note that while Dr. Meacham was working on this theory, we had been trying the same thing experimentally, but neither of us at the time knew of the work of the other. While not all of our work has yet been completed, we have shown the following to be true: First, that the normal functions of the pancreas are greatly impaired by the production of lesions in the mid-dorsal region of normal animals and that glycosuria practically always results. This has been tested on thirty-three dogs and seven monkeys. Dr. McConnell has shown that following such lesions pathological changes are to be found in the organs supplied by nerves from the lesioned segments. We have further shown in a few animals that lesions of the mid- and upper dorsal regions are followed by an actual loss in weight.

Dr. Still has repeatedly urged us to consider that the infectious fevers are diseases of starvation and he has surely demonstrated beyond any question of doubt that the proper feeding by mouth and per rectum in typhoid fever is a very essential part of the treatment. If, then, we normalize by proper adjustment the structural perversions so that the perversions of function may normalize themselves and give the proper kinds and quantities of food, we have scientifically determined a third factor in the treatment of infections.

Our medical critics would say, since they have practically abandoned the use of drugs in such cases, that the proper feeding and nursing is sufficient, but this statement is scientifically absurd if we allow due credit to the results of the clinical and experimental research just given. We might almost as well assume that we could ligate the portal vein, the lacteals from the small intestines, the common bile duct, the pancreatic duct, the afferent and efferent vessels of the pancreas and extirpate both kidneys and get the same results from food and drink, because it has been shown by clinical and experimental evidence that structural lesions affect all of these fuctions and that the proper treatment of the existing lesions will be followed by far greater results than if the patient is treated by diet and nursing alone. This, then, is an important part of the treatment of acute infections which the osteopathic physician, and he only, can do.

There is, I believe, a fourth factor to be considered among those things which reduce normal resistance, and that is the lack of specific antibodies in the body fluids. We now have much reason to believe that certain structures in the body

are possessed with the power to produce certain substances which are more or less specifically antitoxic to certain foreign substances which enter the body. It is further known that some of the structures (I refer more especially to the glands of internal secretion) have the property of reacting in such way as to produce specific antibodies which will combat the infectious agents (bacteria and their toxins) of certain diseases and in time render the affected individual immune to this particular disease. There is as yet little scientific evidence of the specificity of such secretions, but we do know of a few examples of such functions. If, for example, the adrenals be extirpated, the animal so operated is more susceptible to certain toxins of bacterial origin and the resistance to other toxins and poisonous substances, especially the products of perverted body metabolism, is reduced. Considering the relation of structure to function of these organs, we note one thing of especial interest and that is that they are abundantly supplied with nerves. There is probably no organ in the body with a richer nerve supply and yet our modern texts on physiology give us no particular function of these nerves. They are not known to be specifically secretory, trophic or motor and yet they are there. Why are they there? When, in the course of phylogenetic development, a certain structure is no longer needed to perform an important function, its nerve supply is usually one of the first of its parts to degenerate. From these facts we are led to conclude that many of these glands of internal secretion which have such a rich nerve supply are really of much functional importance and that since other glandular structures like the kidneys, liver, pancreas, etc., are greatly affected by structural lesions, it would logically follow that these structures are similarly affected. If this conclusion is true, then certainly by the proper osteopathic treatment we can control the functions of these organs and in many cases increase the specific resistance to certain infections by increasing or normalizing the secretions of these structures.

I am not ready to agree with Sajous that the adrenals have entire control of the production of antibodies, nor do I agree with Dr. Meacham when he seems to try to attach the greatest importance to the fifth dorsal as a regulator of the functions of the adrenals and pancreas. On the other hand, I am not sure that he is wrong and most heartily agree with him in that lesions of the mid- and upper dorsal regions are responsible for decreased resistance and impaired nutrition. Futhermore, I believe he is right in considering the pancreas as an antibody-forming organ. I have used the example of the adrenals here only because he used them and not because I would put them first as antibody-forming structures.

It must be understood that I have been considering only general principles and have not tried to touch upon the detail of the mechanism of reduced or increased resistance to infections.

There are, then, these four general principles to be considered in the cause of all infections and there are four different ways in which we can treat such diseases scientifically by osteopathic methods. The proper treatment of infections would include of couse many things other than those which I have mentioned specifically under the headings of those four principles, but I feel sure that these general principles are enough to include all conditions with the exception of those conditions which from their nature demand operative surgery. By this statement I mean that there seems to be no need for such things as the so-called internal antiseptics. Certainly we would hesitate to use those methods which have been so generally condemned by their own originators as the use of internal antiseptics have been condemned by the modern men of medicine.

In considering the medicinal or any other method of treatment for infections we must meet certain questions as follows: First, why are bacteria and their toxins

present in the system? Second, why is not the germicidal property of the cells sufficient to destroy these bacteria? Third, why are antibodies of the body fluids insufficient to counteract the effects of the toxins? Fourth, why is there no reliable drug treatment for bacteria or parasites in the body fluids? And, fifth, why have not the serums and vaccines met with reasonable success? In answer to the first, we would say that foreign bacteria are present in the system only when there is a marked reduced resistance or when they are taken in in such excessive numbers that the natural resistance is insufficient to kill them. They remain there because they are more resistive than the the tissues in which they live. The second question has its answer in the first three general principles given above, viz., those factors which reduce resistance. The third question involves all four of the general principles given and especially the fourth.

After having tried many different drugs, such as thymol, sodium cacodylate, neosalvarsan and others, in a recent series on ten monkeys affected with an animal parasite disease in which the parasites were found in the alimentary tract and in all body fluids, and after having met with absolutely no success, I agree with Dr. Osler when he states ("The Principles and Practice of Medicine, 1912 ed.): "So far as I know, no drug destroys the embryos in the blood." In this series we have always demonstrated the presence of the parasites in each case before administering the treatment and the treatment was begun as early as we were sure of the diagnosis. The treatment was given according to the most approved methods and the doses were regulated in proportion to the weight of the animal as compared with the weight of the human. In some instances the dose was increased to as much as four or five times the maximum lethal dose, but not in a single case did the treatment kill the parasites in the body fluids, nor have we had a single recovery from these methods of treatment. On the other hand, the animals so treated die sooner than if left untreated. It may be of interest to note here that we have had some success (at least two complete recoveries out of five monkies treated) from osteopathic adjustment following normal salt enemata in this disease. Interosseous lesions of the lower dorsal and upper lumbar regions were found to exist in every monkey which contracted this disease and treatment of this condition has never yet failed to give at least some relief in the nine monkeys so treated. A full report of this work will be published later.

The following factors are to be considered in answer to the fourth question: The organisms are more resistive than the tissues in which they live, because, first, they are often less complex structurally and physiologically than body cells and resistance seems to vary inversely with cell complexity. Second, during the long period of adaptation to resistive factors their struggle for existance has increased the resistance of these parasites and parasitic bacteria. Third, most parasites and bacteria are possessed with a protecting sheath or capsule which is highly differentiated and functioning body cells could not have. Fourth, encystment in muscle tissue in case of certain parasites and the walling off of many bacteria offers protection. In this connection it is of interest to note that when certain parasites, e. g., the plasmodia, are liberated from the blood cells they are less resistant and thus the reason for the administration of parasiticides so that they will be active at the time the parasites are liberated.

Osteopathy as a profession or as a school of practice takes no stand for or against vaccination, antitoxins or serum therapy. There are those of us as individuals who are in favor or against one or more of these methods of treatment because of various reasons. Personally, I take a positive stand against vaccination for smallpox because of the reasons which

I have set forth in a recent number of this JOURNAL. I am not in favor of the use of diphtheretic antitoxin because I believe, in fact I know, that there is some danger in its use, but more especially because I believe that osteopathic treatment is not only more efficacious, but it is never followed by harmful results as is frequently the case with antitoxin. I have had only eleven cases of diphtheria, one of which was practically dead when I first saw it and died a few hours afterwards. There seemed to be no chance for any method of treatment to do any good. Another was given antitoxin (6000 units) and died a few hours afterwards. I do not believe that the antitoxin was the cause of death, but on the other hand I am sure that it did no good. The other nine cases were treated osteopathically and made complete recoveries with no complications or sequellae. The limited statistics which we have would surely show that osteopathy is far superior to other methods in the treatment of this disease. Dr. C. E. Still has a record of about eighty cases without a single death and no complications, while in the same epidemic those treated by medical methods all developed complications and sequelae and there were comparatively few recoveries. Dr. Geo. Laughlin has had a somewhat similar experience and I have talked with many other physicians whose results are very good in this disease.

As to the use of bacterial vaccines, phylacogens, etc., I would say that they are all yet in the experimental stage and we cannot afford to experiment with them. Why should we take such chances when we know that we have a better method in osteopathic therapy. There may be those of our own profession who question the value of osteopathic methods in acute diseases, but it is my honest opinion that those who do not believe in the value of this system in acute diseases are those who know very little about osteopathy, those who are insufficient technicians, those who have never given it a real test or they are those who have never had any experience with these diseases.

SUMMARY

Dr. Meacham considers the essential physiological problems in the treatment of infection to be "the elimination or neutralization of bacterial and tissue toxins, the inhibition of bacterial propagation, and the restoration of destroyed tissue." We have endeavored to show how the elimination and neutralization of toxins may be effected, how the inhibition of bacterial propagation may be brought about by increasing the general nutrition and by increasing the specific antibody content of the body fluids. We have furthermore offered experimental and clinical evidence of the fact that these things can be done by osteopathic methods. Relative to the restoration of destroyed tissue, we would say that we know we can improve nutrition to the body as a whole and to certain structures. Dr. McConnell has shown experimentally that much can be accomplished in the removal of pathological conditions by osteopathic methods of therapy.

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## THE SPINAL LESION

### A PROBABLE EXPLANATION OF ITS ACTION

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### A PRELIMINARY STATEMENT

The development of every science illustrates the well known principle that the approach toward a comprehensive knowledge of the underlying truths inevitably comes through a process of elimination. In dealing with any science it is found that in our progressive search for light we climb step by step over the eliminated ruins of what were once held to be indispensable explanations. At first sight it may appear that much effort and thought is wasted but it must be remembered that the discarded elements are in no sense a total loss. The shell which so completely shelters the embryo chick before

hatching becomes a mere bit of cast off rubbish once the chick is born, yet no one is interested in finding ways and means of doing without the shell just because eventually it becomes worthless.

So in the sciences, Physics, Chemistry, Biology, and Osteopathy; while the acceptance of new conceptions must unavoidably be founded upon the destruction of once cherished ideals, this destruction is not anarchistic, but rather typifies Nature's profound law of change —when the proper time comes, the one remaining function of the Old is to give birth to the New.

In our osteopathic concepts this process of unfolding is beginning to show itself, and in so doing is offering conclusive evidence that osteopathy is a true science with all its attributes, in contradistinction to the pseudo-science, which no matter how inviting its appeal, must surely disintegrate when subjected to careful analysis.

Our investigations and reasonings concerning the spinal lesion bear out the above indications. Once it was said that the mode of action of the spinal lesion might be explained by considering that the mal-adjustment of the spinal parts produced its ultimate effect upon the organs and peripheral tissues by exerting direct pressure upon the vessels and nerves supplying those tissues. Dissections and animal experimentation appearing to prove this view of the effect of the lesion faulty, the substitution of a better theory conforming closer to the known facts is being accepted; namely, that the effect of the disturbed structures and articulations is exerted through a disturbance of the nervous balance upon the blood vessels supplying and draining the cord-centers from which these nerves arise, and thus upon the viscera and muscles.

The question this paper wishes to raise is: Are we not ready to take one step further in refining our conception? To answer this question it is expedient that we first investigate the grounds we at present occupy to determine, if possible, the wisdom of such an advance.

The structural lesion naturally gathers about itself a good deal of osteopathic discussion for the reason that it is at the very core of the science. From the point of practice we are daily proving conclusively that this structural lesion is a direct causative factor in producing and maintaining disease. On the other hand, our research is rapidly covering this same ground in experimentally proving out the principles involved in linking structural abnormality to mal-functioning.

First comes the evidence of carefully kept and many times multiplied case-reports standing as clinical evidence that removal of structural lesions results in abeyance of mal-function. Second, we are already proving in the laboratory that the experimentally produced lesion is causing a resultant recognized improper functioning of the elements involved which is the natural corollary of our clinical record. Finally, we are interested in deducing a scientifically satisfactory explanation of *how* the structural lesion produces or maintains the disturbed functional condition.

Before discarding the direct nerve pressure theory we previously found, a better way of comprehending the relationship involved by recognizing the probable importance of the nerve center situated within the cord and by connecting it to the external lesion through means of its drainage and blood supply, still retaining the idea of physical (macroscopic) pressure. Now this notion of physical pressure as illustrated in both of the mentioned theories undoubtedly holds for certain selected cases, the second for a much greater number than the first. But to make our basic principle conclusive it must be capable of being successfully applied to *all* cases. Neither of the old ideas answers this requirement and a resultant confusion is noticed among practitioners, some standing for one theory, some for the second, while still others, unsatisfied with either, are

reaching out for a more inclusive interpretation.

It is comparatively easy to present an additional conception differing intrinsically from those preceding. But that newer theory may only be confirmed by proving its superiority to the conception it would supplant. To do this we should compare it point for point with existing thought and so judge it upon its merits.

Roughly stated, we shall conceive the spinal lesion as producing its hurtful results through a process of irritation-inflammation, which either immediately or ultimately affects certain near-by centers, the mal-function of which is evidenced in a corresponding mal-function of the organs or parts controlled by those centers.

First let us examine the premises upon which our present idea is based as compared with those upon which this one many be founded. The pressure interference of blood drainage and supply of the centers must, because of its nature, depend upon a macroscopic, physical obstruction to the lumen of the blood-vessels. This in turn must be required to explain the various and complex phenomena following such an obstruction. On the other hand, what legitimate premises may we lay down for the irritation-inflammation theory? A cursory examination of practically all the late advances made in physiological study will bring out the insistent fact that these advances are largely made possible through a more or less complete knowledge of *cellular* activity. And we believe that on this same basis can be built the idea of the inflammatory nature of the spinal lesion. It is our contention, then, that in order to place our thought in the front rank of acknowledged scientific investigation, the mode of action of the spinal lesion must be explained in terms of cell-reaction with cell, rather than in terms of gross structure.

In a discussion of the spinal lesion, it should be remembered that it is only one of a number of associated causes. Its relational value, if not quite as important as its intrinsic value, must at least be thoroughly understood. As a source of nervous irritation the lesion acts as a constant drain upon the nerve reserve, tending to lower the general resistance. But as the basic cause of a weak point in the nervous chain of control the lesion has perhaps its greatest worth. Both of these pathological conditions, and in the broadest sense they are pathological, Nature is to a large extent able to cope with alone and overcome—or hold in abeyance through what we are pleased to call a normal period of life. But when circumstances conspire, we have the spectacle of Nature being slowly or rapidly worsted and we label the process ill-health, or disease.

Manifestly the spinal lesion takes on the character of a predisposing cause. Given a certain set of conditions, as, for instance, the presence of a sufficient number of bacilli of the required grade of virulence and we connect them to the case of typhoid through the link of the predisposing lesion or lesions which have undermined the intestinal vitality. Here the lesion makes possible the third factor necessary to successful infection—a devitalized area of tissue which presents the point of attack, and by so doing undoubtedly takes on the role of a predisposing element.

Now the leading question becomes, which conception will in the fullest degree enable the lesion to occupy this predisposing position to best advantage? From the great number of chronic-lesion conditions which confront us we are lead to think that the spinal lesion as we know it must have a tendency toward permanence. We know that in most of these cases there is not a condition of bony dislocation which might easily of itself maintain the abnormality and we further known that most structural perversions of a lesser degree than bony dislocations tend toward rapid return to the normal—*with this one vital exception,* that in all

conditions involving *inflammation,* there is a tendency to the formation of connective tissue and to the permanent building up of a condition other than that formerly maintained. So it would seem that the lesion might best be explained in terms of inflammatory products rather than as the simple end result of macroscopic perversion of structure.

In dealing with the acute lesion our methods of diagnosis are practically methods of determining the presence of a localized inflammation—pain, redness and swelling all enter into our decision. Probably every chronic lesion has at one time in its career been an acute one, that is all lesions have an inflammatory origin, though it is granted the process of inflammation may in many cases be very slight. Making use of the famous dictum: "Nature tends toward the normal," from our present knowledge we are apt to question seriously why any lesion, of lesser magnitude than actual dislocation, does not rapidly disintegrate under the healing influences of Nature and speedily assume a condition of normal structure. May we not then suspect that this same process of inflammation by natural extention may account for the evil results produced as an after effect of the predisposing lesion?

In facing this question squarely it is well to consider that a large majority of spinal lesions are lesions of tissues directly involving joints, or tissues in close proximity to joints. Now, it is a known fact that inflammatory joint complications tends to very slow and incomplete recovery, heavy deposits of connective tissue often being formed, totally changing the actual structural condition of the parts affected.

As we rapidly review the normal make-up of the spinal column and its contents, we find the cord which is largely composed of highly specialized nerve centers completely and admirably surrounded by an ingenious multiple-jointed framework that serves the double function of protection to its contents and of mobile foundation for the many attached structures. At first glance these two functions seem antagonistic—and they are. The one is constantly interfering with the other. While the bony column is usually able to protect its contents from gross injury, the essential fact remains that this delicate cord is strictly dependent for its nutrition on the uninterrupted communication of its arteries and veins which must immediately or eventually tranverse the protective bony framework.

We readily see how macroscopic, physical interference with these means of communication, can and does pervert the normal function of the nerve centers within. Indeed, the only difficulty is that in many cases this explanation too easily, or rather too incompletely, solves the problem involved. May not a process of inflammation traveling along these same lines of communication, more completely and satisfactorily explain the result produced? We think so.

Mention has already been made of the two conflicting functions which the spinal column has to fulfill. So long as no unusual strain or influence is thrown upon it, it is capable of performing both functions in a normal manner. But in its performance of maintaining a delicately adjusted and flexible foundation upon which are hung the peripheral structures, it is constantly being called on to survive strains and impulses which diminish its protective function to its contents. In other words, the acute lesion, slight or severe, is repeatedly produced as a result of the imposition of external forces and at once takes on an importance warranted only by reason of its relation to highly specialized tissue.

Nature always knows what to do in an emergency. Every physician and student is familiar with the beautiful marshalling of forces which she brings to the aid of the injured or inflamed part. But, and this is the point not to be overlooked, this protective or offensive process is uniformly carried on *regardless of its effect upon nearby structures.* Nature in her enthu-

siasm of battle with injuries to the spinal column is perfectly capable of seriously and more or less permanently injuring the contained nerve centers. Instinct (Nature) says fix the injury at any cost. Intelligence decrees that sometimes that cost is thrown too heavily upon involved structures. Nature fights her battles by instinct.

So in the case of the acute lesion, hordes of leucocytes are hurried into the surrounding arteries and thence into the affected tissues. These same tissues rapidly fill with serum, the drainage becomes sluggish, motion of the part becomes painful and is limited. In fact, the normal functions of the impaired elements and of those in direct relationship are for the time being halted while the emergency methods of reparative inflammation are carried on. All the resources of near-by tissues are focused upon one spot and directed toward one purpose—that of immediate aid to the damaged part. The actual effect of this is a pathological activity and a corresponding physiological inactivity, which, while vital to the injured part, is seriously harmful to the related spinal centers, for the health of the contained structures depends almost absolutely on uninterrupted normal circulation to which it must look for its nutrition. Here we have an immediate ill effect upon the nerve centers due to an entirely proctective process used in connection with the injured tissues. As in the typical fire scene, the valiant and efficient fire department pours tons of water into the burning building with the result that the upper stories are saved at the expense of the highly valuable stock in the basement, so the same necessary but ill placed happening here occurs. The delicate nerve centers are asked to endure processes and conditions of starvation for which they are not prepared.

Time goes on. Unless the spinal injury or strain is sufficient to put the patient on his back, he goes about his daily life and so the injured part is forced to continue its doubly arduous function of movement and support of comparatively great weights. Nature does what she can to obviate the more apparent dangers of this procedure. She immobilizes the part to some extent by means of the tense and swollen irritated muscles and the over-strained ligaments. Thus the abnormal condition, which is entirely the result of instinctive effort on Nature's part to protect and heal the damaged structures, tends to become permanent. Acute inactivity bridges over into chronic stagnation. Degenerative tissue changes take place to accommodate these same tissues to this unusual state of affairs. Especially so is this true of the arteries and veins. These common-carriers of supply and of debris respond readily to inflammatory conditions. Their coats undergo well marked changes, which, because of their nature, easily become permanent, in this way making for abiding inefficiency of the nutrition to the cord.

Futhermore, the way Nature repairs joint injuries seem to be to manufacture connective tissue in abundance and use that instead of trying to replace the more highly developed tissues that may have been injured. Unfortunately, Nature all too often takes advantage of this easy method and in her good natured attempts may even carry the matter further than is necessary, gravely affecting the function of the joint and surrounding structures. Undoubtedly, this repairative tissue, for which no place has been provided in the normal economy, does interfere with the nutrition and drainage of the cord and helps to maintain the devitalized condition which has been primarily produced. This, if you wish, may be called physical obstruction to the nutrition of the cord, but first we must acknowledge that it is a product of inflammation.

In this connection it is especially pertinent that we carefully consider the difference between simple pressure, or obstruction, and inflammatory pressure or interference. Living tissue has a curious

way of accommodating itself to simple pressure. Witness the steady growth of a new finger nail beneath the old shell that has been killed but which occupies the place the new nail ought to occupy. So a blood vessel will just as readily go round a corner as straight ahead if simple pressure is all that is exerted against it; but let that blood vessel be infiltrated with inflammatory products, its structure changed, and it *cannot get away* from this type of pressure. One type is external and may be accommodated to, the other is internal, and the changes in the very structure of the vessel, must interfere with its function.

Do these several factors seem to indicate to us that this idea is a plausible explanation? Still, no matter how badly or how beautifully a theory may *sound*, to be accepted it must answer affirmatively one question: Does it work? Will this irritation-inflammation theory, with its complexities, some of which have not been guessed at as yet, apply harmoniously to the clinical results which it tries to explain? Let us see.

If inflammation is to really serve its reparative function, we know that we must get physiological motion of the joint. A continuous and sufficient flow of blood coming and going is essential. Dead tissue is tissue which has failed to move. Now what happens when the osteopath takes up a case? First he tries to get *motion*—muscular, ligamentous, and if possible, bony activity. He is doing exactly the right thing to help or hasten the repairing function of inflammation.

Again, why does the "general treatment" exponent and the chiropractic succeed in getting results? It can hardly be that they do the right thing unwittingly often enough to show progress, for even luck is against those who do not know what they are trying to do. But here is the point: Each does produce motion, and any motion, within reasonable limits, is of direct aid in clearing up inflammatory after-products.

Multiplied instances might be given all showing that our treatment more nearly fills the purpose of removing inflammatory products which are at the bottom of structural factors that interfere with functional activity, rather than of simply replacing structures which are normal in every respect save position. We are warranted in believing that the pathology of the lesion is more complex than many of us now hold it to be. However, the scope of this article is simply to premise as clearly as may be possible a newer basis upon which we may help to build our science. We will occupy this foundation or discard it only as it is tested out by the many.

A few conclusions may be of value in closing.

1. Every healthy science approaches perfection by discovering its principles through a process of elimation.
2. Osteopathic concepts are evidencing this unfolding process, thereby offering conclusive proof that osteopathy is a true science.
3. The mode of action of the spinal lesion may best be explained as an irritation-inflammation process.
4. Clinical results bear out this theory more thoroughly and convincingly than any former conception.
5. The acid test of time will give conclusive proof of the merits of the irritation-inflammation theory as used to interpret the effects of the spinal lesion.

## OSTEOPATHY AND THE CHILD

CHARLES C. TEALL, D. O.
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I wish to touch upon the specific methods of prophylaxis, although that term may not be properly used, by which the child can be saved by strict osteopathic procedure other than in the larger sense

Read at the Annual Meeting of the New York Osteopathic Society at Albany, November 15, 1913.

of preventive medicine. It is a field of unlimited possibilities for us almost untouched by reason of our youth. By this I mean the physical examination of the infant and the plastic work necessary to correct any abnormal deviations and such care extended into maturity, if needed, at least to be under observation until all danger is passed.

In this particular work the dentist has set a good example by beginning on the teeth at an early period and continuing with regular examinations throughout life. The time will come when the osteopath will be called to watch the spine in the same careful manner and to the everlasting benefit of the race.

As it is physical examination of the child is much more in vogue than in the days antedating osteopathy. This is shown by the examination of school children, which is the subject of much controversy in the cities. Just how much this will mean to the pupil in the way of correction of gross lesions of the body, i. e., spinal defects in their many phases, is a question. The writer has seen many children who have been in gymnasium work, after physical examinations by the directors and pronounced normal by them, who had been given exercises which were exaggerating an overlooked abnormal condition. Perhaps there has been an improvement in this regard and they may now look for something besides tonsils, adenoids, eyes and teeth. These are important, but not the only points to consider.

To illustrate what prompt attention would prevent or what frequent examination would have detected in its beginning this case is cited: Recently a boy of four was brought in by his parents, who were much excited because, the night before, they had discovered something wrong with his spine. Examination showed a pronounced lateral curvature with considerable deformity of the thorax. There was a history of a fall eighteen months before, after which he had complained of soreness in his back for a considerable period. Had he been seen then probably one treatment would have corrected what will now require months of attention.

We teach the domination of the spine over function and we must, therefore, preserve its integrity and at the very beginning of life. It is at this point, if you please, that I shall begin to consider prophylaxis from its strict osteopathic sense, and its value to the child cannot be overestimated, for it can be made the corner stone of eugenics, as no man or race can be stronger than the spine.

Let us consider the normal child, born well and for the first few months remaining in perfect condition, when by a fall that does not attract attention or by faulty method of handling, like lifting to and from the cab or from the high chair without unbuckling the straps, there is the beginning of what may in time be a bad scoliosis or even Pott's disease. Particular attention is called to the lifting from a chair when held in by a strap, as it often brings a strain at the fifth lumbar that results badly. The writer never recalls seeing a case of infantile paralysis that did not have a history of trauma and it is probable that prompt attention at the time of the accident might have prevented or at least changed the course of that dread disease. We all know how these crooked spines are overlooked by the parents and the family physician, many cases in adult life being first discovered at the osteopathic examination.

The bony pelvis is liable to disarrangement in early life and it leads to many acute disorders at first and later to long chronic ailments. All these conditions are easy to correct and the results gratifying, but they must be watched carefully in early life to prevent recurrence. Dr. McConnell emphasizes the need of early recognizing visceral ptosis and its cure by correcting the posture and the strengthening of abdominal muscles by deep breathing.

Any of these conditions, if recognized at all, would be passed over by the aver-

age old school doctor with the consoling promise that the child would outgrow it, which, unfortunately, they do not do. Under osteopathic care these conditions need never become alarming, for they are amenable to treatment, if taken early, in almost every instance.

Another class of cases that comes under our observation is the congenital abnormalities which, at the best, would offer little to hope for under regular treatment. We meet constantly the results of instrumental delivery in the child without coordination, faulty speech and ability to swallow. For example:

Boy six, mother in labor eighteen hours, child badly disfigured and not much hope to live. Soon it was seen he was not normal. At four he came for treatment. Was unable to sit up or to hold his head from his shoulders. Hands and feet entirely without control. Drooled at mouth and could not swallow solid food. Made an animal-like noise of no meaning. Fine, well shaped head and big, clear intelligent eyes. Body well nourished. Well defined atlas lesion, perfect picture of cerebral hemorrage. Two and one-half years after very irregular treatment, he holds up his head, can raise himself and stand by a chair, walks unsteadily when held by the hand, eats most things he should, can hold a cup to his mouth and says many words that can be understood. His mother is now using the Montesorri system, at my suggestion, which is materially aiding his education. The boy will never be independent, but he will be able to help himself in many ways.

Girl of six. Born with cord several times natural size wound three times around the body, so as to clasp the inverted arms down to the back. Result, congenital dislocation of shoulders and elbows with the fingers tightly clasped in the palm. She was seen by a well known orthopedist who said to operate would be fatal. Osteopathic treatment begun at an early age. She now has fairly developed shoulder joints, elbows lack about one-third motion and she can put one hand to the mouth and hold things in the hands. She is still improving.

Two years ago a mother brought in her boy of three months with one congenital talipes equino varus. They came from the country and could not get to my office, so I instructed the mother how to treat the foot daily, and promptly forgot all about the matter. Last month a patient from that locality recalled the incident and said the boy was running about and no one could tell which foot had been affected.

These are the things osteopathy is doing where ever it is practiced and all without any shouting from the house tops.

In treating acute conditions it is only osteopathic parents of the child who really appreciate what can be accomplished by prompt, continued treatment at the moment the trouble is detected. Others, who are called at the eleventh hour, get wonderful results, but not those possible when the child is under constant observation. The mother of my children, when there is a cough or a flush, takes the child to her bed and every movement of the little patient during the night is the signal for treatment. The results are spectacular.

The enema, diet and ten fingers will pull a child out of any tight place that is possible by human aid. There is a flushed face, sudden tired feeling and peevishness. Then temperature and the question is "What have we here?" and the thing to do is not to let the question be answered. It might develop into almost any thing if expectant treatment was followed, but if taken immediately, it will, in most cases, be a memory in twenty-four or thirty-six hours. I have never knowingly aborted measles, chickenpox, mumps, whooping cough or scarlet fever, but they have all come through without sequelae.

All the respiratory diseases and digestive disturbances in the ordinary child yield easily and promptly. After treating my own children I regret that every child cannot be seen as frequently, but results under less favorable conditions are often remarkable. Let me cite several cases as examples:

Boy nine, just finishing school year, at ten p. m., without previous complaint, was found asleep with temperature of 100 degrees. Following day it held to 103 degrees and all night with little change. At the end of thirty-six hours went to normal, and then sub-normal

Child was up and about twenty-four hours later. What was it? I don't know. Do you?

Boy of seven. Always "it" in the rough and tumble games. Was almost torn limb from limb in a rough-house performance. Next morning high fever and delirium. Straightened out his spine and pelvis and he was in school the following day. What was it and what would any other system of practice suggest as appropriate treatment?

Boy of eight. Came home from school at noon sick. Mother called me at four. He lay burning with fever and in half stupor. Found he had fallen off the back-yard fence the day before. Corrected spine and innominate and left. Called at eight p. m. and found him in a profuse perspiration. He was in school next day. Were not these boys ripe for infection from any stray germs that might come their way and could it not have developed into something definite if left alone?

Here is the picture of another class of cases which go through life without help from treatment of any kind and without correct diagnosis:

Girl seven. Undeveloped in every way except height. Arms and legs without flesh, head small and no control of muscular action. Makes sound without meaning and has a vacant stare in the eyes. Up to two years she was a normal baby and showed ordinary intelligence, then came a severe convulsion, which was followed by others, which have continued.

The only history was a fall out of the crib two days previous to the initial seizure. The spine is rigid and in such conditions as to make it impossible to say what is the primary lesion. The mother was told there was no help, but as the first treatment stopped the convulsions, after discontinuing the medicine, she has insisted that I can ultimately perform a miracle. As it is a charity case, I have continued with considerable help to the general health, which is a doubtful blessing.

Treatment of children is the most fascinating of any branch of our work because of the wonderful results and the appreciation shown by the little patients for benefits received. During my fourteen years' work I have never had but two who would not permit me to treat them and there were good reasons for that. As a rule they show more sense than their old kin in the matter and will cheerfully submit to painful procedure without complaining and come back without urging. Also, it is remarkable how loyal they are to osteopathy and how strong a position they take on the subject of drugs.

Under the title of "Some Causes of Deformity," in the *Western Osteopath*, Louisa Burns tells of the influence certain changes in environment or media have upon some organisms in form and how eggs were studied in this connection. The percentage of deformed chicks, incubator hatched, is less than one-tenth of one per cent., yet, if a small dish of alcohol, ether, chloroform or any other volitizable drug be placed but for a few minutes several times in the incubator, the percentage may be brought to as high as ninety per cent.

Experiments tried upon mammalian subjects by using drugs on the parents at different times before and after pregnancy showed a marked influence upon the offspring. The results of drugs showed a much larger percentage of deformed than deficient food supply. Her closing to the article is a fitting one for this:

The danger of the use of drugs is not limited to the danger of abortion or premature labor, but it must be remembered that whatever interferes with the physiological activities of the mother, especially in the early stages of pregnancy, cannot be held harmless to the developing child; it must be remembered also that slight and often unrecognizable deformity of the inner organs, especially of the brain and other parts of the nervous system may be responsible for much of the misery, crime, and nervous disease in the world today.

Osteopathy has this gift for the world: good birth for all children. Fathers and mothers with good bodies; both germ cells produced from glands through which good, clean blood flows freely; nourished through early development with good, clean maternal blood, with no undue pressure at any time; and with an entrance into independent life made as normal and safe as possible,—these factors give every child the best possible preparation for a life of sane, useful happiness.

# DEMONSTRATION OF TECHNIQUE

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It is very difficult to make clear by printed description the details of technic, but I will try to put down some of the thoughts connected with my demonstration before the Kirksville meeting. To begin with, on account of its prime importance, we will consider the innominate lesion, they being the foundation, and necessarily primary lesions in a great many dorso-lumbar conditions.

With the innominate downward and forward, I have the patient rest in the latero-prone position on the well side, with the arm underneath extended back and dropping over edge of table, then with knee of operator resting against sacrum of patient, and grasping flexed knee on affected side, while at the same time supporting shoulder of patient with free hand and bring shoulder forward, you bring the flexed knee upward and backward and with quick gentle thrust, which if directed in same plane as that of sacro-iliac joint will correct the most stubborn subluxation at this point.

In the attempt to describe the technic demonstrated at Kirksville, I will give the one method which I use most often for a given lesion, instead of giving several for each type of lesion as I did when demonstrating. So we will pass now to the innominate lesion in which the bone is tilted in the opposite direction—namely, upward and backward. With the innominate to this position, have the patient lie on the unaffected side facing the physician, then tilt the affected innominate slightly backward, while at the same time you slip the shoulder underneath the patient a little forward toward the physician, then resting the weight of physician upon the forearms, the one resting against the axilla of the patient. with the corresponding arm dropped so that the hand rests against the spinous process of the fourth and fifth lumbar (by this means you lock the fourth and fifth so that the effort to adjust the innominate will not lesion the fourth or fifth), then with the other forearm resting on the crest of the ilium, back nearly as far as the posterior superior spine, as you feel the patient relax, roll the innominate toward the operator and into position. This adjustment is easy, if you first have the patient body in proper position, and then with fourth and fifth lumbar locked, and shoulder well back, the innominate rolls very easily into position.

This same technic may be used for the lumbar region, with the change in leverages that would be indicated—namely, if your lesion be as low as the fourth or fifth, have patient in same position lying on the side toward which the vertebra is rotated, then with the hand which locked the fourth and fifth resting on the vertebra immediately above lesion (to lock the spine above lesioned point), now reach over with other hand and grasp the spinous process of lesioned vertebra, while resting weight as before on crest of ilium, now roll the ilium and lesioned vertebra toward you as in previous case, only using ilium and spine to point of lesion as one segment, and lever. This method may be used as high as the second lumbar, and by reversing your leverages —namely, using trunk of spine to point of lesion as one segment and lever, then locking the spine below lesion, you make your adjustment as before, only reversing the levers, making the adjustment from above instead of from below. This method may be used effectively as high as the mid-dorsal region.

The technic I ordinarily use for the dorsal region is the one which uses hyperextension, and thrust, and has been described so often and so well by C. P. McConnell that I will not attempt to describe it here.

The technic for cervical adjustment has also been recently described in short articles, so I will not rehash that here. The technic for adjusting a first rib is

one which has the patient sitting on table with back to operator, then reaching arm of operator under the axilla on side opposite lesioned rib, and reaching up with hand resting against side of face, then with free hand resting by means of thumb against lesioned rib, you flex head toward affected side at same time bringing pressure down against rib. Give this with quick gentle thrust, not harshly done. For rib lesions lower down (I am assuming that you have first adjusted the vertebra to which lesioned rib hinges) have patient on back, with physician standing on side opposite lesioned rib, then reaching underneath angle of rib and having it rest against hypothenar eminence, while at the same time you bring arm of patient on lesioned side well across the chest, meanwhile holding this arm on a tension, and thereby releasing rib at its articular facet, then bringing the arm down so that it rests in same plane at which the ribs pass round the body, then with quick thrust downward on arm, at the same time raising underneath hand slightly, the rib slips easily into position. I am indebted to Dr. Caine for the demonstration of this very effective rib technic, for he used it on me, and being a heavy patient, it tests the technic thoroughly.

To adjust the eleventh or twelfth ribs, I have patient lie face downard, and bring the leg on the affected side will across the other one, so that the thigh of the crossed leg rests above the knee of other leg, then if the rib be down at the distal end, rest the flat of one hand agains the front third of rib, while at the same time you bring pressure downward on crossed leg, thus using quadratus muscle as lever to pull vertebral end of rib into position. If the lesion is an appromination or lapping of eleventh and twelfth, then use flat of hand against the vertebral end of rib (front third), and bringing pressure simultaneously against rib and leg, you can spread them like you would the fingers of the hand.

These were the main points in technic taken up, and I trust they may be helpful.

We must all try to use the methods best suited to the case and to our own strength; it has been my effort at all times to develop my technic so that I could utilize to best advantage my weight, and that of the patient, using as little energy as possible, and at the same time making the adjustment easy to patient, and with the least possible discomfort to him or her. Let me say again, if we as osteopathic physicians have in any case failed to get results, and the chiropractor has succeeded, it has been because he has adjusted the lesion, where we have been too timid. Let us not be harsh but let us be specific, and we will get results. It has seemed to me that in some cases the osteopathic physician has tried to be both nurse and physician, instead of being physician, and directing the work of the nurse, for with the public still as poorly educated as to what constitutes osteopathic treatment, it is very easy to confuse them.

Let us explain to our patients in an intelligent way the osteopathic viewpoint in their own particular case, and we will have very valuable publicity from that source. We need all legitimate avenues of publicity if we would educate the public effectively. In the early days we were never too busy to tell a patient how we viewed his case, and now that we are in a measure grown up, some of us think it is too much trouble to explain our system to new patients.

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## PSYCHIC EPILEPSY

CLINIC REPORT FROM THE PACIFIC COLLEGE OF OSTEOPATHY

LOUISA BURNS, M. S., D. O.
Los Angeles, Cal.

During October and November of this year, five cases of epilepsy with psychic equivalents have been reported in this clinic. This unusual experience led me to look up past records in the clinic, and I find reports of six other cases of the same type.

The psychic equivalent appears to be associated with *petit mal,* either with or without the major attacks. In one patient with undoubted Jacksonian epilepsy, a number of equivalents appeared. The bony and other lesions found in these patients are the same as those of ordinary epilepsy. The dementing quality of the petit mal attacks is present also in the equivalents. None of our patients remained under treatment longer than three months; rarely more than one month. This time is not sufficient for any opinion regarding the effects of the treatment.

The feature of especial interest in these cases is the quality of the attacks. One patient, a girl of seventeen, became frightened and tried to climb through a window, in each attack.

A little girl of nine always became unconscious, then during the time visited the "Katsenjammer Kids" for a few minutes, really, but for some hours, according to her accounts. During these visions she played with the "Kids." After her return to consciousness she gave long and amusing accounts of the games they played. Each Sunday she watched the supplements of the papers, to see whether her experiences were included.

A man always became unconscious as in petit mal, then passed into the equivalent state, in which he ran as hard as he could out into the country. He always ran until he fell exhausted, then slept hours—sometimes for a day and a night. He awoke from this sleep in his proper personality, with no remembrance of his running. Once he was carrying a satchel containing a large amount of money in bills to the bank when the attack came on. He ran, as usual, into the country, fell exhausted, and slept twenty-six hours. Just as his friends found him, he was awakening, with the satchel under his head and the money intact.

One young lady, of evidently admirable qualities, was subject to attacks of furious anger. The petit mal attacks were very short in her case, and were not always evident to persons who were with her. The anger appeared very "natural" and she had been punished severely all her life for them. It was practically impossible to secure any rational care for her, because it was so impossible to persuade anyone that she was not "just plain wicked."

A man, twenty-five years old, always hid something, usually whatever he could first get his hands upon, in most peculiar and inaccesible places. The attacks usually lasted about twenty minutes, then he rubbed his eyes, shook his head in a dazed manner, and after a few minutes, returned to his normal condition, except that he was very sleepy. He never remembered what had occurred during the attack, and the loss of the hidden articles often caused him much inconvenience. After the attack, he was sleepy until night, or until he could have a long sleep.

In other cases, the movements appear to be the result of a dazed mind, performing such unbalanced actions as might be the natural result of slight motor restlessness affected by the surroundings.

The Pacific College of Osteopathy.

## THE CONSCIENTIOUS PHYSICIAN

Ernest C. Bond, D. O.
Milwaukee, Wis.

I greatly appreciate the honor and privilege conferred by being called upon to address this earnest body. It is not my purpose to advance anything new or startling in the way of diagnosis or technique, that I shall leave to others who appear before you from time to time. I shall, however, touch upon some things that enter largely into the every day experience of the practicing physician. Things that are not found in the regular curriculum of any school.

I have chosen as a basis for my remarks, "The Conscientious Physician." There are so many things that constitute and enter into the work of the conscienti-

Delivered before the Chicago College of Osteopathy, November 15th.

ous physician that it will be necessary for me to handle my subject in rather a broad manner, making a plea for honesty and common sense in the practice of the healing art, for no matter from what particular school you hail, you will find that the successful practice of said art will consist largely of honest, conscientious application of common sense.

There is considerable evidence plainly discernable that the high calling of the physician is not looked up to in these days as much as it was in the past. I am one of those who believe that if this is true the fault can be laid at our door. In speaking of medicine I am using it in its broad definition as given by Webster, viz., The unrestricted practice of the healing art.

A physician of prominence said before the recent Convention of the A. M. A. at Minneapolis, that, "The back bone of the medical profession was the family physician." The family physician is largely a thing of the past, especially in the towns and cities of any importance, where the tendency has been for the profession to split up into high priced specialties. During this change certain abuses have crept in which might be given numerous names, but for want of a better can all be grouped under the one heading, "graft." * * *

I would not have you think that in my opinion the majority of those practicing the healing art are unconscientious in their work; on the contrary, I believe it to be the exception rather than the rule when the opposite is not true. However, where there is so much smoke there must be some fire, and the evidence tends to show that where we once had too little commercialism in the practice of the healing art we now have too much. Personally I have always had a great deal of respect for the old family doctor, (much as I might differ from him on therapy). He rode across these Western prairies of ours in all kinds of weather, paying little attention to his accounts, often passing to the great beyond with anywhere from five to ten thousand dollars on his books. "The laborer is worthy of his hire," and here you have an illustration of insufficient business methods.

The high calling of a physician is as old as the human race, and I am one of those who believes it to be as honorable as it is venerable. The relation of the physician to his or her patients is closer even than that of the minister to his congregation. The priest in his confessional comes nearer being a fit comparison in this respect. Every physician worthy of the name must many times fulfill the role of father confessor, and his opportunities to sue his powers for good or ill are practically unlimited, all of which is especially true of the osteopathic physician whose relation to his patient is closer than that of any other physician.

If the twentieth century physician is to fufill the obligations of his high calling he must be to some extent at least an educator, for after all is said and done there is one thing that stands considerably above any school of therapy and that is correct living. "The physician who shows us how to do without him is the only one we cannot afford to do without."

I would not have you understand me as meaning to imply that the majority of those coming to us do not need treatment. It is true that most of them will need structural adjustment. In many cases, though, our mechanical treatment must be supplimented by pointing out what brought about its necessity, so they can avoid it if they will. We should always remember while "Structure affects function," it is true that function affects structure.

The fact that many people refuse to be instructed and insist upon doing just as they please should not alter our general course in the least, for the truth of the matter is that nothing in the way of treatment will be of much avail in these cases, and you will find them, as a rule, very unsatisfactory as patients.

The physician who tells a patient that he or she does not need medicine or other

treatment, but who instead, in indicated cases, orders a rest and change, or golf or some other rational measure, is nearly as rare as a hen's tooth, and yet he is just the one most people will go back to when in need of a physician, and the one they never cease to talk about. A lady recently came to me for an examination. I told her she was so distressingly healthy I could find nothing to do. Then she told me that her husband said to her before she left home, "Well, if that doctor is honest he will tell you there is absolutely nothing the matter with you." This lady sent me two other patients within a week that were not such physical paragons.

You will find that irrespective of the commendation of your own conscience, that it will never do you any harm in a business way to refuse to treat a case when the case is beyond help, or one that does not need treatment. It will also tend to refute the criticism of our friend the medic, who says, "Oh, yes, certainly the osteopath will find a bone out of place in your back, and if he doesn't he will likely put one out."

I predict that the time is not far distant, in fact it is here now, when the public will seek the physician for his counsel and advice, as much as for his particular treatment, whatever that treatment may be. The role of common sense in medicine is coming into its own, too long has it played a minor part. Therefore, it behooves us to look well to our preparation for the practice of the healing art, for to be successful our knowledge must consist of more than knowing how to extirpate a diseased portion of anatomy, or to use material remedies, whether it be by the use of drugs or by the harmonizing of faulty structural conditions.

Important as these things are, I repeat we will fall short of the possibilities of our profession unless our knowledge exceeds them. I do not mean to say that our knowledge need be so extensive as to cover the whole field of therapeutics, and consequently leave the knowledge very thin in spots. The physician's knowledge of human nature cannot be too profound. We have come to the point where we view disease more as a unit, and recognize pathology as but perverted physiology, or the natural health forces having gone wrong. The successful physician of today treats the patient more and the so-called disease less than he did a few years ago. This very change has brought about a different relation between the physician and his patients. The personal element has always played an important part in therapeutics, but it now assumes more importance than ever. It is the little things we must get at by our conscientious and kindly interest in the welfare of the patient. We must find out about his or her daily habits of sitting, walking, eating, sleeping, etc.

Sometimes more can be found out in five minutes by visiting their home than you can in a month at the office. Unless we can make our patients feel that our interest in them exceeds the size of their pocket book, we will fall short of that success which is at once our duty and our due. If a patient comes to us with a regular re-curring kink in her neck, it is not enough to relax the tissues and correct the kink. We should try to discover what is causing it to recur, else the patient is prone to get the quite prevalent opinion that osteopathy is all right, but if you once start you must continue *ad infinitum.*

Many fail to realize the injury this all too prevalent impression is doing our profession. The patient may be assuming a faulty sleeping posture, or she may be sleeping with one side of her neck exposed to an open window, (for in spite of the oft-repeated assertion that drafts are not dangerous, the writer has seen more cases of neuritis caused in this manner than in any other). It is as much a part of osteopathy (in all cases where it is possible) to find and remove the cause of the lesion as it is to correct it when diagnosed, and rest assured osteopathy will get the credit.

The conscientious physician will not

treat a case three times a week when the patient will get along just as well or better on less. And when a patient comes to you, who has been under treatment and complains of feeling all tired out and of little improvement in the trouble for which she came, the physician should consider very carefully, for in all probability, the patient is being over-treated, over-stimulated, if you please, and as a consequence, instead of getting a physiological stimulation of the vital forces, they are being inhibited through overstimulation. If you sleep in the loop district often enough and long enough you will cease to hear the cars.

I wish to take the opportunity of registering my emphatic protest against routine treatment, the frequency with which it is administered and the fee that is charged for same, as all tending to keep our work on the massage plane. The conscientious physician always keeping in mind the greatest good to the greatest number and the future of the profession will first fit him or herself to render proper service and then make reasonable and fitting charge for such service, always of course, reserving the right in individual cases to charge in accordance with the patient's need and ability to pay. The physician who goes out and reduces his fees beyond the point where proper service can be rendered and in keeping with the dignity of a great profession is not only harming himself, but harming all of us.

The conscientious physician should have inscribed upon the walls of his office or his memory, these words, "Canst thou minister to mind diseased?" He is narrow indeed who will today deny that mental and immotional states are very potent factors indeed in affecting bodily function. The following case will furnish all of the argument necessary I think. A lady came into my office one day looking the picture of ill health and dispair. She said she wished to have an examination, and also to consult me. When I entered the treating room to examine her, she said, "Doctor, I fear I have a pulsating tumor." If my memory is correct I think some doctor had intimated or told her she had something of the sort. Fearing I would not be able to locate the exact spot, she took my hand and placed it over the epigastrium, and said, "There, don't you feel that beating?" I said, "Yes, I feel it, what of it?" "Why," she said, "isn't that awful?" I replied that I did not see anything awful about it, that it certainly would be awful if she did not have that beating.

I then explained to her that what she felt was simply the pulse of the abdominal aorta somewhat exaggerated by gaseous distention, caused by nervous dyspepsia, brought on by worry and mental depression. I told her after a careful examination that in my opinion there was nothing much the matter with her and that she would have been all right if she had not accidentally discovered that she had a beating there.

Any physician of experience will readily understand what a load was lifted off that woman. She actually looked ten years younger when she left the office. The point I would like to emphasize without seeming to lay too much stress upon my own virtues, is this: I could have played the part of an alarmist, told this woman she was in a bad way, but she had come to me just in time and that I thought I could pull her through all right, (we cannot deny that there is too much of that sort of thing), kept her under treatment for an indefinite period and lost the patient and her confidence in the end.

There is a great field of therapeutics which is common ground which lies entirely outside the curriculum of any school. In my opinion every school should have a chair of rational therapeutics filled by a man of wide practical experience as well as theory, for in all probability our success or failure will depend upon our knowledge of this field and how we apply it. Suppose we proceed to enter the realm of actual practice (in our imagination) for a time, and

see if we cannot demonstrate the part common sense or the lack of it plays in the work of the conscientious physician.

Let us now proceed to call upon a few patients. Our first call will be upon an elderly lady, who six months previous to our meeting her, fell down a long flight of stairs. She has been under the care of two M. D.'s and two D. O.'s. All four have treated the symptoms present, which are constant pain in left hip and back, radiating down leg and an inability to bear any weight weight upon the limb. From the history of the case and a careful examination we are confident we have a fracture to deal with, but in order to be absolutely certain we insist upon the thing that should have been done six months previous; viz., an X-ray examination. As we suspected, the examination reveals a fracture through the neck of the femur, which reminds us quite forcefully that the conscientious physician should not neglect any and every scientific means of proven value in diagnosing his cases.

The next case we are about to see illustrates very nicely the difference between theory and practice, especially when the practice is not diluted with common sense. A young medical doctor just out of school was called to see this little girl when she was four years of age. The complaint was obstinate constipation. He had been taught to give calomel as a purge. He gave the child enough to salivate her at his first visit. She cried bitterly from the pain of her sore mouth and gums, so he was called again and as he had been taught to give morphine for pain he used his little hypodermic with the result that the secretions were so locked up that the last condition of the child was worse than the first. We see her at ten years of age, at which time she has not yet fully recovered from those two visits.

The next case we are about to see will show that the osteopathic physician is not an exception and that he too is inclined to over-work his theory and not sufficiently mix his practice with common sense. A gentleman comes to our office complaining of head noises involving one side of the head and ear. According to osteopathic theory a disturbance of the nerve and blood supply directly or indirectly will cause these symptoms. So with the lesion theory exaggerated, we proceed to work upon everything of this nature for a week with no improvement. It then occurs to us to carefully examine the ear complained of. By the aid of an ear speculum and a light, we are able to locate a pledget of cotton stuck fast to the ear drum and with a small pair of tweezers we remove the osteopathic lesion in this case, and with it the disagreeable noises.

Before closing I should like to briefly sum up or pick out the "nail heads," if there are any, in this semi-compound topic of which we have been speaking.

1. The physician of today as a rule, no matter of what school, is not as conscientious in his work as he was some years ago.
2. The profession is keenly aware and the public are coming to realize that there is much downright dishonesty and graft among those practicing the healing art.
3. If we will look the matter squarely in the face we must admit that there is a vast amount of incompentency in the ranks, irrespective of school, and that what we need is less theory and more actual experience on the part of our graduates, in caring for the sick, if not as individuals, then in small classes under the instruction of a physician skilled in physical diagnosis and versed in that great field of therapy uncircumscribed by the boundaries of any sect.

Let me conclude with these words of Wm. Osler:

> Always seek your own interests. Make of a high and sacred calling a sordid business, regard your fellow creatures as so many tools of trade, and if your heart's desire is for riches, they may be yours; but you will have bartered away the birthright of a noble heritage, traduced the physician's well deserved title of friend of man, and falsified the best traditions of an ancient and honorable guild.

# The Journal of The American Osteopathic Association

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## Editorials

### FINAL NOTICE CONCERNING THE OSTEOPATHIC MAGAZINE

Copy of the first number of the *Osteopathic Magazine* (which will be dated January, 1914) is now in the hands of the printer. With the active co-operation of the members of the A. O. A., we hope to have this number in the mails by Christmas. The magazine will be one of which the profession may well be proud. But whether it can be enlarged and improved as we hope is a matter that will depend upon the individuals composing the profession.

This will likely be the last notice you will receive before the appearance of the magazine. It is therefore necessary that you act upon the following matters *at once:*

(1.) Each member should sign and return immediately to me the request for copy which was enclosed with circulars recently sent out from the secretary's office. It is up to you now whether or not you receive a copy free for the coming year.

(2.) Those who have subscribed for a number of copies and wish them sent to individual addresses should send mailing lists and checks to cover subscriptions *without delay.* It will take time to arrange lists and address envelopes.

(3.) There is still time to make a list of the friends to whom you wish to send the magazine as a Christmas remembrance. Remember we will, if notice is received in time, furnish free, suitable Christmas post-cards for notifying them of the subscription.

The subscription price is $1.00 per year for each copy. This, and mailing directions should be sent *now* to

DR. A. L. EVANS.

MIAMI, FLA.

### WHAT ARE WE GOING TO DO ABOUT IT?

Under the caption "On Educating Ourselves" in these columns in the last issue, we hurriedly discussed some of the points on which as a profession we need developing. There seems reason for further thought along these lines. While we have a larger proportion of our practicians identified with and interested in our profession than any other medical body has, we have not the proportion interested, or interested to the extent, we had a few years ago. This state is perfectly natural, but it is not more desirable on that account.

It is inevitable but that many who graduate, especially when our colleges are not pressing the professional responsibilities upon the students, for one reason or another, largely financial, should go out and attempt to establish themselves without being identified with our organized effort. If they succeed, they decide in the absence of training on this point

that they do not need the help of the organizations. If they do not succeed, they cannot spare the fees. It is equally inevitable but that some each year should for one reason or another drop out of our organizations. Hence, it is difficult for the Association membership to forge ahead very fast. And while we have many who are giving splendid service to the organized effort and while this number is constantly increasing, we fear it does not keep pace with the graduates reported each year by our colleges. And further, as we reported several times, outside of a comparatively few the zeal and earnestness of the members of the profession for the professional movement do not seem to be as warm and strong as a dozen or more years ago.

On the other hand, literally wonders have been accomplished in the advancing of osteopathy as a profession within this limited time. But so much more could have been accomplished and so much more needs to be accomplished that we cannot afford to rest or be satisfied with past and present progress. The frantic effort of the medical organizations to hold the interest of the public while they adjust themselves to the situation created by the practical collapse of their system of medicine, remedies they relied on being almost all discredited; together with the gradual awakening of the public to the fact that for a large portion of its ills and ailments drugs are no longer considered as remedies, make it vitally necessary that we present to the public, and particularly that we properly educate those who come under our care as patients, as to just what osteopathy is as a science and art of healing and just what it stands for and is doing as a professional body; besides this, it demands that individually we be prepared for the larger work opening up to us.

At the expense of being tedious to constant readers of the past half dozen years, but in order to reach the large number of new readers, whom it seems desirable to acquaint with our view point of the situation and press a few needs of our activity growing therefrom, we must cover some of the ground we have gone over before in recent years.

In the first place, we are not meeting the need for new osteopathic physicians. This we believe is due to the fact that the average osteopathic physician is not a missionary, is not a propagandist of the osteopathic cause. We are not interesting as many young men and women in the practice as we should, and we should reach a greater number of the more educated and more intelligent class. We are leaving this recruiting work largely to the schools, when we should do it individually. When we interest men and women in osteopathy and send them to the schools as students, we are then able to greatly increase the number of those who will be active in the professional side of osteopathy because in a measure we can direct then in regard to their professional activity. Besides, when we show this interest in the schools, we are in a position to insist that not only the schools make better osteopathic physicians than ever before, but also that the training include ethics and comity and our relations to the organized movement. The rapid increase in the number of drugless healers of various names emphasizes the necessity of our more rapidly increasing our own numbers. We place this as our first need: Increased numbers of osteopathic physicians thoroughly prepared for professional work, and thoroughly in sympathy with our organized movement.

Secondly, the legislative status appears to be inadequate and unstable. Most of the medical practice acts were put upon the statute when there was but one gen-

eral system of healing, the internal administration of drugs. True, most of these acts have been partially revised to meet the appearance of the practice of osteopathy within the state, but they are nevertheless back numbers and in no sense meet the public's need of protection. One could hardly count on the fingers of both hands the various cults practicing in many of our states. Hence, for the legislature to pass an act naming these by name or defining them is unthinkable. Most of our statutes provide for a four year course (some will increase this within a year or two) for the practice of medicine and define the practice of medicine as any effort to treat or relieve the sick by whatever means. Now the man who has had a correspondence course or no course at all, and treats by laying on of hands or by some mental process or makes some effort at massage or so-called structural adjustment, is treating the sick. They supply a demand created by natural credulity of some and by the revolt against drugs. They are taking advantage of the fact that osteopathy has proven that at least many ills respond to other than drug medication. These people flood certain of the states.

Possibly some public official makes it his business to attempt to enforce the law regarding them. Their defense is that the law which they are accused of violating contemplates the practice of surgery and the internal administration of drugs and the educational qualifications and examinations for license are based on that practice. They themselves are not engaged in a dangerous practice is their defense. They merely speak a few words to the sick person or manipulate his body in a harmless manner and hence it is discriminatory and unjust to require of them to qualify for the practice of medicine and surgery when they do not use either. And the plea is recognized by the public; it appeals to the jury, and results in the laws most necessary to health protection being defied, and medical practice is in chaos. The meaning of it all is that we can't regulate growth by law. Statutory enactment will not make nor control public sentiment. We have outgrown our medical practice acts.

It seems to the JOURNAL to be idle and wide of the mark to debate whether these practitioners whom we have in mind are doing more harm to osteopathy or to medical practice. The fact remains that these laws which give them every opportunity to cry persecution on the part of the established systems of medicine is the biggest possible advertisement they can get and if these conditions continue for a few years longer, there will be more irregular and untrained practitioners in the United States than there are qualified and regular graduates. Now every one knows, or should know, that when these people establish themselves in a community and draw around them a few friends and satisfied patients, as all of them will, that it is impossible to dislodge them. They argue that they are meeting a demand. They bring in witnesses to that effect. Local public sentiment is with them and no law can be enforced which is counter to public sentiment. If the public wants this class of practice, the public is entitled to have it, but public interest as well as justice to the rights of other schools of practice demand that these people all be regulated and examined, but examined as to what they practice and be licensed accordingly The conviction of the JOURNAL for a year or more has been that the osteopathic profession must get behind some general movement for the revision of our medical practice acts which contemplates the condition we are confronted with and not the theory that the practice of medicine is one.

As regards the legislation applicable to the practice of osteopathy, some of the states are virtually closed against us, and many others are closed against the older graduates, no provision being made for recognition of a dozen years of practice or a recognition of his license in another state. In states where this condition exists it is most unfortunate for the practice of osteopathy in that state; but these are limited and local conditions, and if they impose conditions on our colleges which are hard to be met, it makes it more our duty to interest men and women in entering our colleges, and there is some recompense in the fact that the higher qualification the state sets for the practice of osteopathy, the educational side of our profession is magnified just that much.

In the third place, the general cry of the times for publicity, the persistent effort along this line by the medical profession to take to itself credit for everything humanitarian which is done and the further fact that osteopathy really has a message for the public, we should organize and support an advance along this line. As most members of the profession know, recently the Press Bureau was established, the aim of which will be to secure for the profession rather than for the individual proper publicity. Many things are happening within our ranks every day with which the public through the press, local or general, should be acquainted and we are neither doing ourselves justice as individuals nor are we contributing to the advance of osteopathy as we should when we neglect these opportunities.

The profession for a long time has felt that while the field of missionary literature, literature to attract the attention of those who have not come under osteopathic treatment, has been well covered, that there is lacking a literature which should more fully acquaint those who have a knowledge of the therapeutic side of osteopathy with a more accurate and general information regarding the osteopathic profession as such. This need it is hoped and believed the new *Osteopathic Magazine*, to be mailed before January 1st, will meet and fill.

The size and appearance of this magazine, the scope that it can cover and its usefulness to each of us will depend upon how earnestly the profession supports it. It should not be necessary for our members to depend exclusively upon copies they pay for for its circulation, as it will be worth the subscription price to any family which has some knowledge of osteopathy and many of these friends of the system will willingly subscribe for the magazine if it is properly brought to their attention; but the bringing it to their attention is entirely up to the members of the profession. The A. O. A. has no means of knowing who would be interested and even if it had such knowledge, general circularizing them would be impossible. If each reader of this will consider himself a committee of one and introduce this magazine in his community, his rewards will be rich.

One other thing no less important is the osteopathic lecture. We should call the attention of the public to the annual meetings of our organizations by having a public lecture to which friends of the practice are invited. In any town or city where there are as many as a half dozen osteopathic physicians, regular meetings should be held to which patients and friends are invited and a lecture should be given followed by a general round table discussion. If this were carried out inestimable good would result to the advancement of osteopathy and gain to those participating in it. Free clinics

should also be established in all such towns, and in the larger cities the effort be made for hospitals.

Now the whole question involved is whether osteopathy as a school of medicine shall endure, as to whether we shall establish it as a system of medicine and advance it to the point where it shall be the system of the future or where its principle shall be recognized and revise and revolutionize other systems, depends absolutely upon whether we are sufficiently educated to get this larger vision, whether our own income and livelihood is held so close to our eyes as to obscure such an opportunity as has never been offered to a professional people before and will not be offered to us again. Are we equal to the strain? Are we ready to say, "The profession first, its interests are mine and my individual interest and growth will depend upon and follow the profession of which I am a part?" Can we depend upon the great body of practicians to recognize that we must grow as a profession, we must make our movement felt as a profession and when this is thoroughly done, if we as individuals, are equal to reasonable demands made upon us as physicians and as representative citizens in our community, our own place in that community or wherever we wish to establish ourselves is assured. Have we existed long enough as a profession? Are we far enough away from the school room or from the occupation which formerly engrossed us to make us recognize and accept this higher obligation? It is an obligation, it is *the* obligation. What are we going to do about it?

The answer to all the questions and problems here concerned is in the answer to one question, are we willing to support the organizations of osteopathy? For with them supported the profession can soon be educated to the point where nothing reasonable is impossible.

## THE PHILADELPHIA MEETING

The profession should be interested to know that arrangements are well under way looking to a remarkable meeting in many respects to be held in Philadelphia next summer. It is now well on toward twenty years since a handful of the students and factulty met in Kirksville and established a national organization which has grown into the present American Osteopathic Association. The Philadelphia gathering will mark the eighteenth annual meeting of this organization.

Appreciating the fact that this is the first meeting to be held in the East and recognizing the further fact that in this section of the country osteopathy and everything else new is accepted less readily and looked at with more suspicion, the determination has been made by those having the meeting in charge to make of this such a meeting as will force a better recognition of osteopathy in this section. The program will be of the highest order which the profession can produce. The responses made by those who have thus far been asked to fill places on the program show that we recognize the possibilities which this meeting unfolds.

The local committees have been appointed and are at work and they too enter with zeal and determination to do their part in making the meeting successful in every way. The chairman of the Local Committee is W. S. Nicholl, Mint Arcade Bldg., and the secretary is W. Armstrong Graves, Park and Allegheny Avenues. The several other Committee chairman are as follows:

Clinics—Charles J. Muttart, Flanders Bldg.

Entertainment—Marie Elliott Magill, Franklin Bank Bldg.
Exhibits—Irving Whalley, Land Title Bldg.
Finance—Nettie C. Turner, Land Title Bldg.
Halls—Fred'k Wm. Kraiker, Franklin Bank Bldg.
Information—Robert J. Storey, 1118 N. Fortieth Street.
Press—A. M. Flack, 3414 Baring St.
Reception—S. P. Ross, Land Title Bldg.
Registration—H. E. Leonard, Flanders Bldg.
Re-unions—Jane Scott, Mint Arcade Bldg.
Room Assignment—E. S. Willard, R. E. Trust Bldg.
Transportation—O. J. Snyder, Witherspoon Bldg.

The last named Committee will include in its activities not only the arranging for railroad rates and routes, but will select one or more active members in each of the states who will from time to time seek to interest the profession in the meeting as well as arranging for parties on special trains at the time of the meeting.

The American Medical Association meets in Atlantic City and it is understood that the American Institute of Homeopathy also meets in or near Philadelphia at about the same date. Until the date of these meetings is set the time for our meeting will not be announced. But this will probably be determined when the Executive Committee meets in Philadelphia early in January to perfect the plans for the meeting.

It is not too early to begin to press upon the profession the opportunity that attendance at this meeting will be worth. We expect to be able to get the full value of this meeting before the public and to this end numbers will count tremendously. In a way it will be a loss of time and energy to prepare the program that has been outlined and carry out the arrangements that have been made if the attendance is not in proportion. Although this announcement may be six months in advance of the meeting it is none too early for us to begin to make up our minds that we must attend.

## THE OSTEOPATHIC MAGAZINE

Undoubtedly the announcements of the magazine have met with a hearty response from the profession. The magazine is now in type and will be ready for mailing before the first of the year. As was announced in an earlier number, those who subscribed for extra copies and have sent addresses to which these copies shall be mailed are entitled to cards, if they want them, which shall be an appropriate announcement of the gift of the magazine at the Christmas season. All who wish these cards and have not ordered them, either through the secretary's office or Dr. Evans at Miami, Fla., should notify the secretary at once.

More important, that all members who have not sent in the formal order for the copy to be sent them by the A. O. A. should do so at once. A card for this purpose addressed to Dr. A. L. Evans was sent each member in the publicity letter mailed out early in November. This is a formal subscription card and no member will receive his copy promptly, if at all, unless this card is signed and mailed at once.

One other thing: No doubt after seeing the initial copy of the *Osteopathic Magazine*, many will wish to order who have not ordered up to this time and many others possibly will wish to increase their order or will secure other subscriptions from their clientele. Arrangements have been made to hold the type for several weeks and orders for additional copies of the first number received by January 15th will be filled.

# Departments

## TECHNIQUE

Carl P. McConnell, D. O., Chicago

The ribs modify the movements of the dorsal spine and complicate the lesions of this region. The rib frame-work is a fairly rigid cage, still there should not be too much rigidity. A too rigid thorax is frequently a sign of senility. Upon the other hand, in early life, a softened condition of the bones, so there is deformity, is very apt to indicate richitis; this would call for systemic treatment, particularly of a dietetic order. Everyone is familiar with deformed chests due to lateral curvature, Pott's disease, enteroptosis, certain organic diseases of the heart, upper respiratory disorders, and instances of restricted chest movements from posture, poise and lack of proper breathing and exercising. Dr. Burns, in her experimental work, has shown how intimately, physiologically, the rib marrow and movements are related to blood elaboration.

Proper breathing and exercising is a physiologic necessity as every one knows, for not only to proper chest and respiratory development, but to the health of the tissues generally. One of the first requirements in rib conditions is to teach the patient to breath properly and to establish a normal equilibrium of the entire body. Vitiated breathing, especially involving the diaphragm and muscles of forced expiration, is frequently an important element in growth and development of the chest, abdomen, pelvis and spine. The fibers associated with the central tendon of the diaphragm have an intimate relation to many tissues of the chest. This point illustrates a common fault in practice of isolating some muscles or other tissue and paying undivided attention to it at the expense of intimately related and associated tissues. We have in other writings emphasized the relationship of vitiated breathing to spinal development and viscus growth and development. We are also convinced from experience that proper breathing, and exercise of the pharynx and soft palate, will frequently prove very beneficial in soft palate relaxation (abnormal), and enlarged tonsils and adenoids.

Most rib lesions are secondary to vertebral rotation. Correction of the vertebral lesion will usually adjust the rib, but still there is an important field wherein rib lesions are of primal importance. Frequently in lesions of the typical rib or rotated vertebra, toward which the spinous process is deviated, will carry the vertebral end of the rib upward, and twisting the rib upon its axis will throw the sternal end downward. The rib upon the opposite side will have its ligaments considerably strained. No doubt such lesions, aside from local nerve irritation as tenderness, possibly neuritis, difficult breathing, will dispose, via vasomotor involvement with consequent lowered resistance, to tubercle bacillus or pneumococcus infection, or to other micro-organisms, as well as to bronchitis, asthma, functional and organic disorders of the heart and disturbances of the mammary glands. An interesting feature that throws an important side-light upon nerve lesions is the clinical fact that often a neuritis of the arm is due to a lesion of rib or vertebra or both, from the first to fifth dorsal; showing that the vasomotors are primarily at fault and not the nerves of the brachial plexus.

Many of the rib lesions will be adjusted as part and parcel of the vertebral adjustment, but even in these instances the costo-vertebral articulation may not be truly apposed owing to contractured and fibrous tissues, so that specific work upon the rib is demanded. Two of the favorite methods with many is to have the patient sit up, hyperextend the spine with patient thoroughly relaxed, and then exert a thrust upon the prominent transverse process; or have the patient flat upon the face thoroughly relaxed, patient takes a full breath and then lets it out quickly, a thrust is executed upon the transverse process. Both of these methods require considerable practice, but if done carefully and precisely, both the vertebra and rib will probably be adjusted. In these cases the vertebral and rib lesions are really one lesion. Complete relaxation and co-operation upon the part of the patient is one essential, the other is specific work upon the part of the operator; if both of these elements are not fulfilled, failure is the consequence. In one sense technique is largely a matter of relaxation.

A common and frequently successful method of rib adjustment is either have the patient sit upon the stool or lie upon his side, lesion side upward. Locate precisely the character of the lesion; place the knee exactly against the angle of the rib; reach around with one hand to the sternal end of the rib; grasp the hand or the elbow of the patient of the lesioned side; instruct the patient to take a deep breath, at the same time pull upward, outward and backward on the patients arm; the full breath and pull upon the arm will loosen and disengage the lesion; the co-operation of the patient and operator must be absolute or nothing will be accomplished; then at the right moment the breath is released, beginning expiration, the arm relaxed, a slight thrust is made with the knee and the fingers on the sternal end assist in moving the rib in the right direction; all of these latter movements must be done synchronously at just the time the lesion

is loosened, for failure of any one will mean failure of the entire operation.

Occasionally, with the patient upon his normal side, the operator stands in front, with the fingers placed firmly upon the angle of the rib; the patient takes a deep breath and lets it out quickly; and the operator at the precise moment of relaxation will be able to guide the rib into its normal position; thorough relaxation of the muscles should precede adjustment.

One of the old methods was to have the patient sit upon the table, the operator stands in front with arms of patient over his shoulders and thoroughly relaxed; then the operator, with his fingers upon the angle of the rib, patient's spine slightly hyperextended, forces the rib into place at the moment of beginning expiration of breath. This is too hard upon the operator. The same principle can be used to better advantage and far greater ease upon the operator by utilizing the swing.

Dr. Harry Still used to employ a method for the upper ribs that is both simple and easy. With the patient flat upon the back, take hold of his elbow and throw it transversally across the chest; next place the fingers of the operator's other hand under the angle of the rib; then with the one hand upon the patient's elbow, forcing it carefully, find the range of greatest rib effect, and with the two hands working in conjunction, frequently the rib can be adjusted. This, like all methods of technique, requires practice.

The upward displacement of the first rib is one of the most common rib lesions. There are several methods of adjustment. The following rarely fails: Have the patient sit upon the stool; stand behind him, and with one hand hold of the head, force it laterally in the opposite direction to the point that the scaleni and other muscles are put on considerable tension; then with the fingers of the other hand over the middle third of the rib, crowd it down into position at the moment of the release of tissue by the first hand. The procedure must be timed just right. It is an effective and easy method. Lesions of the first rib are frequently overlooked. Its relationship to important vessels and nerves, especially the sympathetic and particularly the stellate ganglion, are important.

One of the easiest methods for technique of the floating ribs is to have the patient upon his normal side, with the upper leg thrown back to the point that the foot hangs over the edge of the table, and his upper shoulder and arm thrown forward in the opposite direction; this brings rotation of the body at the waist line or over the lower ribs. Stand behind the patient, with the hand toward the foot of the table upon the patient's ilium and the other hand placed flatly over the floating ribs. Now have the patient rotate his upper shoulder a little farther forward and at the same time take a deep breath. Then with one hand pulling backward upon the pelvis, with the other, the one over the ribs, force them away from the spine. The ribs will usually assume their normal position. A little variance of the hands and position of the patient's body will commonly secure the desired angles and leverages. Probably very few have much difficulty in adjusting these ribs. A number prefer to have the patient upon the back and others to have the patient sit up, but the principle is largely a modification of the above. It should be remembered that at times the costal end of the tenth rib will be found loose, the so-called stiller rib; this found in cases of enteroptosis and neurasthenia.

Having the patient upon the side and pulling the upper arm forward and downward and slightly upward with the fingers or hand of the other arm upon the angles of the rib, and utilizing the respiratory force, will at times adjust lesions of the lower and middle ribs.

Lesions of the costal cartilages are frequently overlooked, especially in those cases where the cartilages is lesioned independently of the rib. This is not a rare lesion. Have the patient sit upon a stool, the operator stands behind; reach around in front with both hands upon the lesion and place precisely at the points for forcing the lesioned part into place; next have the patient take a deep breath and just at the moment succeeding the full expansion, just at the moment of return chest excursion, slip the maladjustment into position. In this instance do not wait for complete expiration, but instead just the moment of beginning expiration.

In cases of rib lesions where damage is acute and severe, adhesive straps applied as in fractures for a few days will be helpful.

Lewis G. Robb, D. O., writes:

**I have no manipulative method that is peculiarly my own, but have modified several to suit my own convenience. The following is one that I think is particularly effective and easy for both patient and operator in disorders of the third to ninth ribs. After relaxing tightened muscles, have patient lie on table with right side up (taking right fifth rib as seat of trouble); Stand in front of patient facing his head; place thenar eminence of one hand over angle of rib and other hand over sternal end; and after getting firm hold make a sudden chug at the beginning of expiration, approximating the two hands and release suddenly. By using a little judgment in the amount of force used one can usually correct even stubborn cases with very little effort. By dropping the hands from angle of rib to the spine this method can be used advantageously on localized anterior and rotated conditions.**

Frank C. Farmer, D. O., presents the following technique for rib lesions:

"From a study of the anatomical relations,

one could comprehend how a rib lesion may exist with its corresponding vertebra, anatomical and functional intact, but clinical experience does not bear out such observations. An isolated rib lesion attached to normally placed vertebra is rare. Conversely apparent anatomical adjustment of the vertebra may be attained without complete reduction of rib lesion, and herein lies the special field for technique of rib lesions. The character of the ribs at different levels renders them vulnerable to different forces and consequent changes to such forces differ and also forces applied for their correction differ. In general, technique designed to correct rib lesions may be divided into three grand divisions, namely, (1) that technique designed for the reduction of the first and seconds ribs, (2) that designed for the third to the tenth inclusive, and (3) that designed for the eleventh and twelfth. Judgment must be used in selecting technique designed for different types and classes of patients, but in general the writer succeeds best with the following procedures.

"First and foremost, ascertain whether or not the corresponding vertebrae are anatomically and functionally adjusted. If so, technique for an elevted right first rib has been as follows:

Patient seated, operator standing at the back, right thumb placed between the angles of the first and second rib, with the left hand under the patient's head, the operator flexes the head and neck over the patient's left shoulder until the right thumb feels a sense of giving in the first rib. Holding the position with the thumb, the first and second fingers are pressed firmly against the upper surface of the rib, while the left hand swings the patient's head forward on the chest and brings sharply over the right shoulder. If successful, lesion will be adjusted as the swing of the patient's head starts from the extreme left position or after it has attained the extreme right position. Failure to reduce in this manner generally means either a long standing lesion or else mal-adjustment of the corresponding vertebra. Depression of the first rib can generally be corrected by the first two steps, namely the pressure of the thumb between the angles of the first and second ribs with extreme extension of the head over the left shoulder. The adjustment of the first rib is rendered more simple, because of the attachment of the scaleni muscles.

*Adjustment for Elevation of the Second Right Rib:* Patient on the back, operator brings the patient's right arm at right angles with patient's body, palm upwards. Operator steps in between the patient's arm and body, passing his right hand above the shoulder to the patient's back, with the flat fingers firm pressure is maintained between the angles of the first and second ribs. With the thumb or fingers of the left hand, pressure is placed on the lower border of the sternal end of the second rib. With the elbow of the operator's right hand he can steady the right arm of the patient. Instructing the patient to take a deep breath, release of the lesion can be accomplished by maintaing the forces applied as above.

*Correction of the Depressed Second Right Rib:* Patient sitting on the stool, operator sitting on the table, placing his knee at the angle of the second rib and passing the left hand around the patient's body, holding firmly the sternal end of the second rib and with the right hand grasping the patient's right wrist, cautiously bring the extended right arm of the patient slightly above the right angle to his body to the point of firm tension. Now instruct the patient to take a deep breath and the lesion should be reduced just previous to deep inhalation.

*From the Third to the Tenth Inclusive:* In this region, little difficulty is encountered because of the normal mobility of the ribs and accessibility for work. Bearing in mind the necessity of vertebral correction, the average lesion will yield to either of the two following procedures, to wit: (1) Patient sitting on the table well back, so that the knees are extended throughout, relaxing the anterior muscles between the spine and limbs. Left arm passed about the patient's body beneath axillae by which the patient is drawn backward and extension maintained with either the thumb or the heel of the right hand, the operator presses forward and outward at the angle of the lesioned rib. The vital point in this procedure is to gain maximum relaxation by retracting the patient's body to the point when the anterior muscles of the body cease contracting and before the posterior muscles of the body contract, to anatomically ascertain the weight of the body. This might be termed the point of maximum relaxation. It is sometimes advisable to have the patient inhale a deep breath, but at no time is great force necessary. (2) Patient on the left side, operator standing in front and with figers of the left hand applied to the angle in the rib and tension inserted designed to pull the rib from its vertebral attachment, the patient's right arm thrown over and back of his head, while the operator presses firmly above the patient's rotated shoulder; maintaining this position, a deep breath by the patient easily suffices to make the needed correction.

*Lesions of the Eleventh and Twelfth:* On account of the extreme mobility of these ribs, lesions are more common and the cause of the lack of support, more difficult to permanently restore an elevated eleventh or twelfth rib. A depressed eleventh or twelfth rib, when concomitant with weakness, can only be permanently restored with the returning strength. The attachment of the quadratus lumborum necessitates the elimination of any chronic contractions of that muscle and if the rib is not bound down mechanically, the following procedure will restore it to its place. Patient lying on his back, operator stands at the left side of the patient, with the right hand grasps the patient's right wrist, with the left hand passed over patient's body, operator grasps the angle of the twelfth rib, putting pressure designed to pull the rib away from the vertebral articulation, holding firmly with the operator's right hand, swings the patient's arm across patient's chest up over the head until the patient's right arm is lying side of and parallel with the patient's head, holding firmly the patient takes a deep breath. The writer is using less of specific technique designed for reduction of rib lesions each year, because of the infrequency of the occurrence of such lesions independent of the vertebral mal-adjustment. We frequently encounter several ribs elevated or depressed *en masse*, but invariably this is of a vertebral causation and the work designed to correct such conditions is practically of no consequence and many times may be absolutely contraindicated, causing unnecessary irritation and fatigue to the patient.

There are two or three points bearing upon the pathology of the osteopathic lesion we wish to emphasize again. Their relation to technique is most important. First, the usual lesion is not in a state of absolute rigidity; there is commonly some motion. Second, the lesion is between two vetebrae. We are too apt to designate a certain vertebra as being

out of normal position, when in reality it is two contiguous joint surfaces whose relationship is deranged. Third, it is the superimposed part of the spinal column, that is the spine from the joint lesion upward, that is rotated or subluxated. The lower vertebrae, insofar as a certain lesion is concerned, are normal. Fourth, the compensatory lesion or lesions, those above a certain primary lesion, is nature's attempt to re-establish equilibrium. These points apply to the average lesion; there are exceptions.

Rotation produces a certain amount of side bending and *vice versa*. Character to a certain extent depends upon location. Compensatory changes bring weight of body over gravity line. Primary lesion, frequently difficult to adjust, owing to ligamentous changes. Compensatory lesions usually easy to adjust, but will not remain adjusted unless primary lesion is corrected. One possible difference between double lateral curvature from say rachitis or infantile paralysis and a typical osteopathic lesion with compensatory lesions; the former pathology may occur synchronously, while with the latter, the compensatory change is a sequel to the primary lesion.

The following interesting and effective method of technique of the ribs is presented by Edgar S. Comstock, D. O.:

My experience has been that a large percentage of the rib lesions have an accompanying vertebral lesion, and in these cases the correction of the vertebral lesion will usually correct the rib lesion. Occasionally one finds a rib lesion without the vertebral lesion accompanying and it is of these that I presume you wish an outline of the technique of correction.

I have selected a concrete case and will give you the technique that I have found most effective in the correction of such a case. Upon examination of a patient, we will suppose that we find the fifth rib on the right side approximating the sixth rib anteriorly, or tipped downward as it might be called. In such a lesion the posterior end of the rib will be raised in relation to the vertebral articulation. Having verified my diagnosis by a careful examination, I have the patient sit upon a stool, and I stand, or sit on the table, behind the patient, and find the angle of the subluxated rib by palpation. When I have located the angle I place my right knee directly against the angle, and then reach over the patient's left shoulder with my left arm, and get hold of the inferior border of the fifth rib, right side, at the anterior end with my fingers of the left hand in such a way that that I can give an upward pull on the rib. Having placed my knee and my left hand in these respective positions, I take hold of the patient's right wrist with my right hand and elevate the patient's right arm anteriorly until I have the Pectoralis Major on a tension, and then by increasing the pressure on the angle of the rib with my knee and pulling in the line of correction on the anterior end of the rib with my left hand, I give the right arm a sudden hyper-extension, at the same time increasing the tension with my hand, the rib will nearly always return to its normal position. By having the patient take a deep breath and then exhale just as the force to produce the correction is given, the rib will slip into place much more easily than otherwise. This I find the easiest on the operator and it seems to cause the patient the least inconvenience of any method I have been able to work out.

Should it be a raised rib, as for example, should the fifth rib on the right side approximate the fourth rib anteriorly, I have the patient take the same position and I place the knee below the head of the rib and with the left hand in the same position as in the first case, and the patient's right arm in the same position as above, I first raise the fourth rib on the affected side and then as I let the patient's right arm down anteriorly, I take the thumb of my left hand and press downward firmly on the superior edge of the affected rib at the anterior end. The first move will stretch the intercostal muscles between the fourth and fifth ribs which will relax them and then with the downward pressure on the fifth rib and the lowering of the patient's right arm, the rib may be slipped down into position. As the arm is lowered, the knee should be pressed upward upon the head of the rib, thus giving the force in the line of correction both anteriorly and posteriorly.

Should the lesion be on the left side, just reverse the position, using the right hand where we used the left before, and the left hand and knee where we used the right before.

The following from B. W. Sweet, D. O., is a description of clean-cut technique. Note the preciseness, confidence and judgment:

*Rotations of Upper Dorsal:* Have the patient sit on table with back to operator—sit well back on the table so to take the strain off the muscles; stand behind patient, placing your thumb on concavity of lesion. Reach around patient under the arm of affected side, grasp firmly with hand flat, so you will not bring too much strain on one point, then raise or lift up on patient until you feel the weight of the body and the natural resistance. Patient must relax perfectly—then as you feel the strain of the tissue and the weight of the patient sagging against resistance—make a quick forward, downward movement (thrust) with your thumb which has been placed against the tranverse process and on the concavity of the lesion. This will throw the vertebrae over in line. This is the most perfect way of correcting lateral rotations and subluxations of the dorsal region that I have found.

This is modified in three or four other ways that are successful in different patients; for example—patient sitting in same position on table well back—standing behind patient after carefully diagnosing your lesion, place your foot on a high stool and knee against back on concavity of the lesion; reach around patient with both hands, fingers flat on the sternum, patient relaxed until the normal weight of the body is felt, then thrust forward with knee and a slight jerk or quick extension simultaneously with the hands which have been placed in front on corresponding ribs, fingers meeting at the sternum. This will throw the vertebrae into line. This is a very satisfactory way with a patient who will not or cannot relax well or is very heavy.

Some will argue right away that these movements will do for lateral or twisted spine, but not rotation. It will do for rotation and the only necessary precaution is applying your fixed point. Always make your fixed point on lower lesion on the concave side as you examine from lumbar upward. Then if you are not able to fix the rotation after a few treatments by treating the lower vertebra involved, then change to the concave side of the one above, or in other words, the upper vertebra involved and repeat the movement as described above.

*Irregular Spine:* A splendid way I have found to correct upper dorsal, which is the hardest part of anatomy to correct, is to have patient sitting on table, operator standing behind patient, grasping both elbows

extended directly horizontal in front of patient with one hand, then place other hand flat on the spine between the shoulders; pull the patient well back and when well relaxed, push upward with one hand on the spine and pull quickly upward and backward with other hand on elbows. This is excellent for correcting upper dorsal when patient is not too heavy. I call it correcting a *zig-zag* spine.

*Rib and Vertebrae:* The same principle is involved in correcting rib lesions and irregular spine. One movement I use with success: Grasp, standing behind, patient's elbow on affected side by reaching over opposite shoulder and holding the arm longitudinal with the body, thumb on concave side of lesion or if rib on the vertebral articulation or head of rib, then lift upward on the elbow, pushing the shoulder girdle upward, taking the tension off of muscles, then thrust forward, at the same time increase the tension by the lift on the elbow.

In all of these movements, position counts a great deal. In having the patient sit well back on the table, it releases the tension of the muscles anteriorly, especially muscles attached to the lower part of the spine and the limbs.

*Rotation:* Another movement for correcting anterior or rotated spine is to have patient sit on end of table, feet resting on a chair with the knees flexed to relieve tension; then place stool or box on table, sit on stool back of patient, placing both knees against the spine on either side of the lesion, patient bent slightly forward to put extension on lower part of spine, then fix the point well with the knees, reaching forward both hands on the chest about one rib or vertebra above the lesion, then bend the patient slightly backward, keeping the fixed point well in mind; lift up quickly with both hands, making quick, sudden pressure simultaneously with both knees. This will loosen up and correct spine that seems almost impossible to move otherwise without hurting the patient. The main object in all these quick, sudden movements is to get action before reflex action of the muscles takes place. The principle of extension and thrust at the same time will replace vertebra with less force and better results than any other way I have found in my practice.

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## SANITATION

### TAPEWORMS

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The precise place which tapeworms occupy in Nature is not very well known even at the present time. By most zoologists they are placed in the great class of Vermes or Worms, but this division of the animal kngdom consists of a number of groups so imperfectly related to each other that it is not at all improbable that future zoologists will divide it into two or more co-equal divisions.

As one studies the structure and life history of the tapeworm, one is almost forced to the conclusion that whatever it may be, it certainly is not a worm. It is impossible for us to form any clear conception of the ancestor from which this queer form of life has descended. It has been so modified by its parasitic habits that most of its original structures have disappeared. It is one of the comparatively few animals which are entirely without organs of either offense or defense, and it is also entirely devoid of the power of locomotion. Its digestive system has completely disappeared and in its mature form it is little more than the home of a mass of organs necessary for the reproductive function. Indeed, when its life history is told, one readily sees that if its capacity for reproduction was much less than it is, the race would inevitably perish.

These parasites are usually not so disastrous to their hosts as one might at first suspect, and the popular idea that they consume food to the detriment of the patient is without foundation in fact. Were they so highly injurious as to cause the death of the host they themselves would be involved in ruin. Parasites of this kind tend toward a symbiotic relationship with their host, that is a relationship of mutual helpfulness. So far as the tapeworm is concerned, however, symbiosis has been very imperfectly developed, as we have every reason to believe that it is entirely useless to its host, although as before stated, most forms are not highly destructive.

The life of the tapeworm presents such a cycle that it is by no means easy for one to determine where to begin to tell its story, but as people are best acquainted with it in its adult form, it will perhaps be as well to begin with this period of it's life history.

In this stage of its existence, the tapeworm consists of two pretty well defined parts, one of these parts is known as the scolex or head and the other part consists of the proglottides, which are continually mistaken for its body. As a matter of fact, the so-called head represents the entire worm and the proglittides are independent individuals which are budded off from the parent stalk. The proglottides occupy somewhat the same relationship to the scolex that the branches which might be cut from a willow tree to use as cuttings occupy to the tree from which they are derived. The proglottides are continually produced by the scolex and those which are most remote from the scolex are the oldest. These proglottides consist of little more than reproductive units and in each one of them may be found both ovaries and testes. In other words, each proglottid is a hermaphroditic animal.

In some species of tapeworms the proglottides have little or no power of motion. In others, they move with some degree of freedom when they are detached from the chain to which they originally belonged. In all cases, the proglottides discharge their eggs in such a way that there is a possibility of the eggs being swallowed by some other animal, thus the proglottides or the eggs from the proglottides in the alimentary canal of the wolf are discharged in such places that deer or rabbits may inadvertently swallow the eggs when eating grass or herbage. When an herbivorous

animal (deer, rabbit, etc.) swallows one or more of these eggs, the egg hatches in its stomach and the resulting worm almost immediately passess through the walls of the stomach into the blood. The blood stream sweeps it to some peripheral part of the body where it leaves the blood vessels through the walls of capillaries and becomes encysted in the muscles or other tissues of its host. In this stage of its development, it is commonly known as a bladder-worm. It gets this name from the fact that attached to the body of worm which is to become the scolex, there is a large bladdery organ which is lost when it passes to a new host. Its passage to a new host is dependent upon the first host being eaten. In other words the rabbit which derived its bladder worms from eggs deposited from the body of the wolf, gives the worm back to the wolf when it, the rabbit, is eaten by the wolf. The bladder worm set free by the digestive fluids in the stomach of the wolf, passes to the intestines and there becomes attached to the wall of the alimentary canal by means of hooks which have developed upon the scolex, and here it rapidly developes into the adult form or the form which produces the proglottides. Thus it will be seen that the tapeworm ordinarily vibrates between two hosts. In the carnivorous host it reaches its highest degree of development and in the herbivorous host it lives as an encysted bladder worm.

It is not easy to determine how many species of tapeworms have been described up to the present time. Owing to individual variation among them, it is not improbable that a single specie has been described under several different names and conversely there are some species which so closely resemble each other that it is not improbable that the same name has been applied to two forms which should bear different names. There are at least six different tapeworms which are known to infest the human body and it is highly probable that this number would be considerably increased if we were to enumerate forms which are occasionally or accidentally present in the body.

One of the tapeworms well known to infest the body is known as the Taenia saginata. This tapeworm is not infrequently at least twenty-five feet in length. The scolex or head is about as large as the head of an medium-sized pin. The proglottides of the mature worm are discharged freely from the human body, and when there is a possibility of these being swallowed with the grass eaten by the ox, they readily develop into the embryonic form in his body. The bladder worm of the Taenia saginata forms a cyst not much larger than a pea and as this embryo readily stands a high temperature, it may well happen that the embryo may be introduced into the human alimentary canal when beef is eaten which has not been very thoroughly cooked. The mature form of this tapeworm may live for many years in the human alimentary canal, each year producing hundreds if not thousands of proglottides and each proglottid producing thousands of eggs. It is due to the enormous number of eggs thus produced that the possibility of this worm continuing its life is dependent. The bladder worm form may live for years encysted in the muscles of the ox.

The Taenia solium is a closely related form of tapeworm which spends its larval state in the muscles of the pig. Its life history is almost identical with the Taenia saginata.

The Taenia echinococcus is a near relative of the two preceding worms, but unlike the others it spends larval stage in the human body. Its mature form it found in the dog, wolf and other closely related carnivorous animals and its ordinary life history leads it through the sheep and ox during its larval period, but owing to the close relationship between the dog and man, it sometimes happens that the human being unwittingly swallows these eggs. The Taenia echinococcus differs from most of its relatives by the larva having the power of reproduction by budding. Owing to this, a single egg may produce a large colony of the larvae and the cyst which forms around this colony may be several inches in diameter. Because of this peculiarity, infection by the Taenia echinococcus is an extremely serious matter and when the cysts occur in the liver, as they not infrequently do, it may lead to early death. It is perhaps needless to say that when the larvae develop in the human body, they are hopelessly side-tracked so far as their own development is concerned, as the dog and wolf can continue the species only as they get the larvae from dead sheep or cattle.

Another member of this genus is the Taenia eliptica, or as it is sometimes called, the Diphilidium caninum. This is one of the smallest tapeworms. Its length varies from five to eight inches and it is one-fourth to one-half of an inch in breadth. This worm normally spends its larval stage in the bodies of dog fleas and its mature stage in the alimentary canal of the dog. As the eggs are discharged from the alimentary canal of the dog, those which happen to adhere to the hairs of the dog's body, may be swallowed by fleas and the flea with the fully developed larva in its body may be swallowed by the dog when the flea causes too much irritation, and thus the cycle is completed. It is easy to see how children playing with cats and dogs infested with these worms may unwittingly swallow the fleas and thus become infected with the mature worm.

One of the most to be dreaded of the tape-

worms is the Dibothriocephalus latus. This is sometimes known as the fish tapeworm, as this worm spends its larval life in any one of several species of fish, and in countries where fish are eaten without being thoroughly cooked, the inhabitants are more or less infested with this worm. The Dibothriocephalus produces a severe form of anemia in its human host and it is not easy for the physician to determine the difference between anemia produced by this tapeworm and pernicious anemia. It will be readily seen that it is a matter of real importance to distinguish between these two anemias, as the only treatment which is of any value for the tapeworm anemia is to get rid of the worm. If this is not done, there is at least a possibility that the patient may absolutely die. It is well to remember that most of the cases of infection by this tapeworm come to us from Europe and that infections seldom occur in this country.

Another European tapeworm is the Hymenolepsis nana. This is the baby among the human tapeworms. It is not known that infection ever occurs in this country. The worm in its mature form is only one and one-half inches in length and not more than three-quarters of an inch in breadth. Frequently it is very much smaller than either of these dimensions. There are about one hundred and fifty segments in its body and its life history is entirely unknown. Some of its victims manifest no well defined symptoms, but others seem to suffer seriously from nervous complications.

When one has experience in our larger clinics and notes the considerable number of people who are suffering from this very preventable disorder, he becomes more strongly impressed than ever before with the value, indeed the absolutely necessity of preventive medicine. The methods of prevention are self-suggestive when one knows the life history of these worms. Meat thoroughly cooked and children protected from infested cats and dogs would very soon solve the tapeworm problem.

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## MENTAL THERAPEUTICS

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In the June issue of the *California State Journal of Medicine*, G. V. Hamilton, M. D., gives us what he calls "Suggestions for Mental Hygiene." He says, "The facts and principles that guide us in our efforts to conserve human comfort and efficiency constitute two quite distinct kinds of material for analysis and classification, and are therefore incapable of entering organically into a single scientific system." He divides this material into two classes, one of which he speaks of as "individual awareness," the other "objects of awareness." Then he gives a concrete example to explain what he means and after an explanation says: "It is clear, then, that we cannot have a single applied science to which we may give the name 'hygiene' and into which we may fit two such dissimilar kinds of material as, for example, the findings of bacteriology and the psychological aspect of neurasthenia. On the contrary, there is need of a physical hygiene which shall deal with health problems from a physical viewpoint, and of a mental hygiene which may legitimately take its place as a form of applied psychology. Further on he says:

> Mental Hygiene must, therefore, undertake a clear definition of the essental neural conditions of consciousness; and it must give explicit recognition of the physical factors which play a part in the determination of mental health and disease. If mental hygiene is to be regarded as a form of applied psychology, its underlying principles must be derived from an academic science to which it shall sustain a relationship not unlike that of surgery to morphology, physiology and bacteriology.
>
> Eugenic problems are bound to confront the mental hygienist and to impose upon him an obligation to strive for solutions which shall be more than superficial interpretations of statistical material. * * * It seems to me, therefore, that before we undertake to apply other than a few obviously sound and practical remedial measures for safe-guarding individual and racial mental efficiency, we ought to arrive at working conceptions of the biological position of consciousness, the history of its development, its relations to the human needs that it ought to meet under normal conditions, etc. * * *
>
> In conclusion, I do not wish to seem to belittle the quest of preventable physical causes of mental inefficiency, nor do I assert that reference to them is out of place in a mental hygiene. No amount of psychological analysis will enable us to reduce the prevalence of mental diseases which are directly traceable to such physical agents as syphilis and alcohol unless we make an effort to guard the community against these enemies of the race. My contention is this: Mental hygiene can find its legitimate development only as a psychological science, and as such it must follow a rule of scientific grammar which requires us to confine our quest of psychological principles to examinations of psychological members. An orderly and logical development of mental hygiene will necessarily lead to correlations of psychical phenomena, and out of this will come practical and explicit recognition of physical agencies which make for mental health and disease. Once the mental hygienist has recognized the presence or absence of a given physical agent as responsible for a faulty mental condition he has passed at least one aspect of the problem on to the physical hygienist for solution. His own task is to understand mental life in terms of itself, so that he may formulate and apply such psychological principles as are appropriate to the interests of individual and racial mental health.

The following, taken from the June number of the *California State Journal of Medicine*, shows what is being done by one medical society in research and investigation along a line I believe has never been mentioned in this Journal and should be of interest to us not only as physicians, but also as fathers and mothers. As it explains itself, no comment will be necessary:

LETTER SENT OUT

To the President of the University:

Dear Sir:—The State Medical Society of California at its last session appointed a committee to investigate the effects of excessive athletic training on students in hign schools and universities, with instructions to report at the coming session in the spring of the year. The work of this committee has been divided amongst the four members thereof, and the psychological aspects of the problem are in my charge. The field is one in which there is little material in the way of experimental evidence and the time does not allow of much direct investigation before the meeting of the society. Under these circumstances it appears to me that, pending the making of such direct research, much valuable information could be afforded to the committee in the drafting of its report by obtaining a direct expression of opinion from those engaged in teaching students of the classes named. Considering the great importance of the question, I feel justified in asking your kind co-operation in the matter. I am enclosing cards to be filled out by those instructors whom you may think most willing and best prepared to afford information. The trouble involved to the latter is small and should any of them be inclined to further aid the matter in hand by correspondence, the same will be greatly appreciated. This latter request is particularly directed to the Department of Psychology in your institution.

Thanking you in advance, I remain,

Very truly yours,

H. D'Arcy Power.

CARD

The Committee on Athletics of the State Medical Society of California will be obliged by an answer to the following questions, based on your personal observation. (Kindly return answers within a week):

1. Have you found students excessively addicted to athletics disinclined to or incapable of intellectual effort?
2. Do students that have passed through a period of athletic training show any falling off in the quality of their college work? For how long?
3. If so, what is the effect on:
   Memory, Concentration, Reasoning, Will Power?
4. Have you noted any relation between athletics and morals in general? In ideas? In restraint?

(Signed) Prof. or Instructor in
University of .....

These cards were sent to fifty universities of the United States and twenty of the largest high schools of California and the summary of the answers Dr. Power received are very interesting and instructive and are as follows:

The answers received are very interesting. Sixty per cent. are positive in finding that athletes as a body are averse to study. As Professor Holt remarks: "Of course, the athletes are not the students. The trouble is that the athletes do not study, but they are men who anyhow would not study." The replies from the high schools place the antithesis between athletic tendencies and scholarship as high as seventy-five per cent. The second question as to whether there is a lowering of scholarship during the period of training is answered by seventy-five per cent. in the affirmative. But there is no agreement as to the duration of the bad influence. Some believe it lasts only during the training period, others for a year, a few think its influence permanent.

The third question, dealing with the faculties chiefly affected, is most fully and explicitly answered in regard to concentration. Ninety-four per cent. hold that it is weakened or destroyed; eighty-six per cent. note weakening of will power; eighty-three per cent. lowering of ability to reason, and seventy-eight per cent., weakening of memory.

The fourth question is answered in an unsatisfactory manner. Forty per cent. make no reply to the question at all, and those that do often make remarks that imply misunderstanding of the information sought. Then sixty per cent. believe that ideals are improved, but seem to be thinking chiefly of the ethics of sport,—not intellectual or moral ideas in later life. Seventy per cent. believe that power of restraint is increased, but make remarks that convey the idea that they are thinking of the enforced restraints of the training period, not the continued exercise of moral restraint in later life. The evidence I have received from others in this connection, leads me to believe that the abstinence of the training period is often followed by physical and moral relaxation frequently leading to license.

## Eye, Ear, Nose and Throat

### OPHTHALMOLOGY

Chas. C. Reid, D. O., *Editor*, Denver, Colo.

OSTEOPATHIC EXAMINATION OF THE EYE

(*Continued*)

Six years ago I sent out about one hundred letters to many of the leading physicians of our profession. The letter contained a set of questions enquiring in regard to their experience with atrophic and hypertrophic rhinitis. Many interesting and varied answers to my questions were received. Among the answers was one that struck me very forcibly. I have thought of it many times since. It was made by Dr. Chas. F. Bandal of Brooklyn. He said he had helped catarrh many times by correcting innominate lesions. He said he did not know why, but he was very positive about the results. I could not then give any satisfactory explanation of it, so I did not mention it in the paper which I prepared and read before the A. O. A. at Kirksville six years ago.

A slipped innominate does affect the membranes of the nose and it does affect the eyes as I demonstrated quite conclusively in my article on opthalmology in the November A. O. A. Journal.

In our examination it might be interesting and profitable to study why an innominate lesion should affect the eyes. Why should the muscles of the forearm and thenar eminence be tender from innominate troubles? It is a case of equilibrium and nerve connections all the way through. In a man of average size in a normal condition the following measurements and relations are approximately correct:

1. The axis of rotation of the sacro-iliac joint is on a level with the second segment of the sacrum.

2. A line connecting the center of the acetabulum with the center of the sacro-iliac articulation of the same side is four inches long.

3. It is three inches from the sacro-iliac

axis to a point directly above the center of the acetabulum when measured on the skeleton, and the same distance from that point downward to the center of the acetabulum. The acetabulum is also two inches anterior to the sacro-iliac joint; hence we might say the hip joint is forward, outward and downward from the sacro-iliac.

4. A vertical line downward from the center of the sacro-iliac will pass through the tuberosity of the ischium coming out about the gluteal fold and passing through the calf of the leg, emerging at the lower part of the belly of the gastrocnemius and reaching the ground at the posterior extremity of the os calsis.

A vertical line drawn upward from the sacro-iliac of one side is one inch and a half external laterally from the line of the spinous processes. Antero-posteriorly it is even with the tip of the 5th lumbar spine, posterior to the 4th, 3rd, 2nd, and 1st lumbar spines. It is parallel with the spinal canal from the 9th to the 4th dorsal, even with the tip of the 1st dorsal spine, and touches the cranium lateral to the external occipital protuberance.

5. A line from the acetabulum downward passes even with the anterior part of the patella and strikes the foot at the center of the arch.

A line from the acetabulum upward is four inches lateral to the line of the spinous processes. Antero-posteriorly it passes the crest of the ilium at its middle, then upward parallel with the spinal canal from the 4th lumbar to the 12th dorsal; in front of the bodies of the vertebrae from the 9th to the 1st dorsal, to the tip of the mastoid process of the temporal bone.

6. With the weight of the body resting on the line described in No. 4, which passes through the sacro-iliac joint, the tendency would be to fall forward. With the weight of the body resting on the line described in No. 5, which passes through the acetabulum, the tendency would be to fall backward. In order for the body to maintain its equilibrium and all structures remain in normal relation, the line of direction must be a compromise between the two lines described. Normally such is the case.

An innominate lesion disturbs the equilibrium by moving the line described in No. 5 either backward or forward according to which way the bone is tipped. The line of direction goes forward or backward as does line No. 5, though not quite in the same proportion, as it is always a compromise.

7. The distance from the axis of rotation in the sacro-iliac articulation to the tip of the posterior superior spine of the crest of the ilium is one inch.

In a forward rotation of the innominate the crest of the ilium moves forward, the anterior superior spine moves forward and downward, the tuberosity of the ischium moves backward and upward, the acetabulum moves downward and backward, and the posterior superior spine moves upward and forward.

If the posterior superior spine moves upward three-sixteenths of an inch, it will move forward one-sixteenth of an inch; the acetabulum will move downward one-half inch and backward one-fourth inch. The symphysis of that side will move one-sixteenth of an inch downward. The leg will be apparently one-half inch longer. This new relation of the innominate will change the line of direction about three-sixteenths of an inch posteriorly, which will cause a loss of equilibrium and the body would tend to fall forward.

Compensation takes place at once along the whole spine, either by readjustment of its normal curves or by individual secondary vertebral lesions.

The tendency would be for the spine to become slightly more straight. The lumbar moves backward, the dorsal forward and the cervical backward. This would necessitate a degree of extension of the occipito-atlantal articulation. The relation at that joint would be the posterior extremities of the articular facets of the condyles of the occipital moved toward the anterior extremities of the superior articular facets of the atlas.

The above movements of the spine would be little or much according to the degree of movement of the innominate and the change in the line of direction. The changes above must always be sufficient to establish equilibrium. The establishing of equilibrium may take place by individual lesions alone or a part by change of curvatures and part by separate lesions. The 5th and 3rd lumbar or 12th dorsal may move posteriorly; the 9th, 7th or 5th dorsal may move anteriorly or in a position of extension. In fact there may be an infinite variety of combinations in lesions to establish equilibrium.

There is usually a lateral deviation in the lumbar noticeable when the innominate lesion is unilateral. This requires compensatory curves in the dorsal and cervical and a lateral lesion of the occipital on the atlas.

With all this in mind it is easy to conceive how lesions of the upper dorsal and cervical regions may occur and disturb the nerve and blood supply to the eye. This is why asthenopia appears so frequently with ordinary use of the eyes even without excessive use of them, and without refractive errors. This is why Dr. Bandal helped catarrh by correcting innominate lesions. This is why tenderness appears so far away from the lesion as the thenar eminence.

I have elaborated this lesion of the innominate somewhat, at this time in order to make

plain and more emphatic the great importance of discovering and removing osteopathic lesions in the examination and treatment of eye troubles. Occulists are too prone to rely upon crutches (glasses) in the treatment of astenopia.

*The Lumbar Region.*—The lumbar region should be carefully examined, especially for any curvature which might cause a disturbance of the equilibrium above. Compensatory curves or individual lesions would be the result with a consequent interference with the integrity of the nervous reflexes to the eye.

*The Dorsal Region.*—The same may be said of the dorsal region as of the lumbar in regard to curvatures. There is one individual lesion in this region that very frequently exists with eye troubles, i. e., the 2nd dorsal vertebra lateral. Any of the upper four dorsal in lesion may be a causative factor in predisposing to disease of the eye, but it has been my observation that the 2nd is involved most often. In severe headaches, due to eye strain from refractive error, a good diagnostic symptom is tenderness and contraction at the 2nd dorsal even when there is no subluxation.

*The Cervical Region.*—This region should have particular care in search for individual lesions. It is quite easy to pass over some small cervical lesion that may be causing serious disturbance, especially if the neck happens to be fleshy. I have corrected cervical lesions and stopped twitching of the eyelids (orbicularis palpebrarum) and other muscles about the face.

The first case I ever saw was sixteen years ago when I was a junior at Kirksville. Dr. F. P. Millard, now of Toronto, was a room mate of mine. He was constantly annoyed by a twiching of an eyelid. I did not find any lesion for it. We went one day to see Dr. Still at his home and told him of our difficulty. He said without examination that the 3rd cervical was in lesion. There was a senior student present whom the "Old Doctor" directed how to use the proper technique. There was a sharp pop, the vertebra evidently went into right relation, the twitching stopped. I understand the patient has had very little trouble since.

I have not had the time or opportunity to do the research work or clinical observation, but it is my firm belief that many cases of corneal ulcers, cataracts, phlyctenular conjunctivitis and keratitis have a predisposing cause in cervical and upper dorsal lesions.

These with other conditions I hope to take up in relation to osteopathic lesions and technique at a future time.

*(Examination of the Eye continued in next issue.)*

## NASAL OBSTRUCTION AND TREATMENT

W. V. Goodfellow, D. O., Los Angeles

The functions of the nose may be classified as olfactory (which at one time was considered the only function of the nose), vocal, providing a "sounding box" for the production of overtones of the voice, and respiratory, serving to warm, humidify and screen or filter the air for its reception by the lower air passages. The third, or respiratory function, is by far the most important of the three, and it is with this function of the nose that I wish to deal.

Infection gains entrance to the system chiefly through the upper and lower orfices of the body. Very few infections arise through the infecting agent penetrating the integument.

The lower orifices, especilly the vagina in women, are the atria of infection in a certain class of diseases associated with the genito-urinary system, but it is the upper orifices that serve as the atria of infection in the great majority of diseases that afflict the human body. These infectious agents gain access to the system in or with the things ingested or inhaled. Probably a greater number of diseases arise from those inhaled than from those ingested. Thompson estimates that 10,000 liters of air pass through the nose in twenty-four hours; at the lowest estimate, 1,500 organisms are inhaled into the nose every hour, and that it must be a common event for 14,000 organisms to enter during an hour's tranquil respiration.

The upper air passages, whose function it is to screen or filter those micro-organisms from the inhaled air, are then of tremendous importance to the body; and any abnormalities of the nose which will impair this function will be predisposing causes of disease.

The interior of the nose is divided into narrow air slits by the turbinated bones. These turbinated bones are covered with mucous membrane containing erectile tissue. This erectile tissue is a close areolar tissue containing large venous sinuses capable of holding a considerable quantity of blood, and is distributed over the anterior and posterior ends of the middle and inferior turbinated bodies. The presence of this erectile tissue insures a perfect warming of the inspired air before it reaches the lower air passages. The interior of the nose is covered by mucous membrane, which is capable of secreting mucus in profusion for the purpose of humidifying the air. It is estimated that a liter of water is daily taken up by the air from the nasal mucosa.

The presence of this moisture upon the surface of the mucous membrane and the division of the air space into narrow air slits by the turbinated bones provide conditions whereby

impurities in the air are arrested upon entering the nose. If these impurities are irritating to the mucosa, an excess of mucus is immediately secreted, washing them from the cavity; their expulsion is hastened by the individual "blowing the nose" to expel the extra secretion, and by the sneezing that is sometimes occasioned when the irritation is extreme. That most of the micro-organisms that are inhaled are thus arrested and expelled is proven by bacteriological examinations made from secretions from different portions of the nose.

The anterior third showed innumerable organisms, the middle third showed but few, and the posterior third was free from organisms.

Normally, then, the system is protected from infection from the countless number of germs floating in the atmosphere by this protective mechanism in the nose. So long as the mucous membrane of the nasal passages has normal nutrition and resistance, the most virulent organisms seem powerless to invade it. This resistance depends largely upon a normal ventilation and drainage of the nasal chambers. With unobstructed drainage, the mucus secreted will dilute and wash away the invading germs. With obstructed drainage the secretions will be retained and dried to a stringy, pasty, consistency, when they become a good media for the multiplication of organisms. These pasty infected secretions are not easily dislodged from the nose by the out-going air current, and drop down into the pharynx to be hawked up and spit out. During sleep and while ingesting food, portions of these infected secretions find their way into the digestive tract.

Some of the obstructive lesions of the nose that interfere with the normal drainage and ventilation of the nasal chambers are ridges, either vertical or horizontal, bony or cartilaginous spurs, usually sharp and irritating, and wide curves of the septum, which narrow or occlude the air space in one nares and usually widen it in the other. Large middle or inferior turbinated bones, caused by air cells in the bone or hypertrophies or hyperplasias of the erectile tissue, will cut off a portion of the nasal chamber from the air current and favor the retention of secretions.

Nasal polypi, which are usually the result of an obstruction, will occlude the upper portion of the nasal chambers, and later, by crowding downward, produce total occlusion.

These obstructive lesions are the ones commonly associated with nasal catarrh. The "catarrh" or post nasal dropping, is merely one of the many symptoms of the obstruction, and should never be treated as a disease, but is evidence that the normal watery conditions of the secretions has been changed by some obstruction to the drainage of the nasal chambers. This obstruction should be found and if possible removed.

Behind every nasal obstruction is a zone of negative air pressure upon each inspiration. this suction of the tissues produces a passive congestion and turgescence, and if long continued over-cell nutrition with hypertrophy results. So that it is not an unusual thing to find a vertical deflection of the septal cartilage, a greatly hypertrophied middle turbinated bone that is blocking drainage from the frontal sinus, Antrum of Highmore and ethmoid cells. When this condition is present, persistent headaches are the rule.

In old catarrhal conditions large hypertrophies, which block the drainage of the sinuses are usually found. These blocked up sinuses are frequently the seat of infection and are the reservoirs for the large quantities of secretions that are expelled. Osteopathic manipulations will frequently give relief in these conditions, but will rarely result in a cure. The removal of the obstruction is usually a surgical procedure. Spurs are usually sawed off. Ridges and deflections of the septum are best corrected by a sub-mucous resection in which the deflected cartilage or bone is removed through a slit in the mucous membrane from between the two layers of mucous membrane of the septum.

Hypertrophied middle turbinated bones are dealt with by removing the front one-third to one-half, thereby uncovering the openings of the frontal sinus. Antrum of Highmore and ethmoid cells. The inferior turbinated bone is rarely attacked surgically. The large size of this bone in these conditions is usually due to turgescence and not to hypertrophy, and will disappear upon re-establishing ventilation and drainage in the middle turbinated region.

Nothing but the "removal of the lesion" can be considered adequate treatment. With the removal of the obstructive lesion and a consequent re-establishment of the normal drainage and the ventilation of the nasal chambers, a cure will result and the organism will again have adequate protection against the invasion of micro-organisms through the breathway.

Ferguson Bldg.

## OTOLOGY

T. J. Ruddy, D. O., *Editor*, Los Angeles

It is my aim to make this department as practical as possible for the general practician, at the same time we will take up the work systematically and in sufficient detail to enable all who are interested in the specialty to equip themselves with the fundamentals, preparatory to a course in clinics.

The ear is so much of a mystery to the average physician that it will prove profitable

to review briefly the anatomy and physiology before discussing methods of examination. Anatomically, the ear is divided into an External, Middle and Internal Ear.

*The external ear* consists of the pinna and the external auditory canal. This canal affords protection to the drum in being curved instead of straight, its direction being upward and backward, then downward and forward, and measures one inch in length. The outer one-half is cartilaginous and contains the ceruminous glands (modified sebaceous glands) and is slightly oval in the vertical, the inner one-half is bony and has placed at its inner end the membrana tympanum which subtends an angle of forty-five degrees from above downward and ten degrees from behind forward. This arrangement renders the floor longer than the roof and the anterior wall longer than the posterior wall. While this description answers for the average case, important variations are found and especially the following differences between early and late life should be noted. In the infant the canal is very short, the drum being almost flush with the plane of the bony meatus and placed in nearly a ***horizontal plane*** in such a position that its external surface is directed downwards.

The *tympanic membrane* irregularly oval and measuring about one-half inch in all ages, is concave outward, the deepest part of the concavity being the *umbo*. Below this point the tympanic membrane is convex outward and presents the *cone of light*, its apex at the umbo corresponding to the tip of the malleus, its base directed downward and forward similar to an auto search-light. In the upper segment is a pinkish-grey pointed projection—the *processus brevis*, a fixed landmark unless the membrane is wholly absent. Extending downward and backward to the umbo can be seen the handle of the malleus. Stretching upward from the processus brevis are two folds of the membrane attached to the anterior and posterior tympanic spines. The "V"-shaped portion of the membrane between these folds is thinner and less tense and is called the *membrana flaccida* (Schrapnelli). It is attached above to the notch of Rivini and forms the outer wall of Prussak's space, seen through the otoscope as a pit or *depression*. In some unusually transparent, or in retracted drums, the bony process of the incus can be seen extending downwards parallel with and posterior to the handle of the malleus.

*Tympanum* (Middle Ear).—Anatomically, physiologically and clinically, especially surgically, this cavity includes from before backward the eustachian tube, the tympanum and the antrum in communication with cells of the mastoid, but for convenience of description, each part will be dealt with separately. The *tympanum* proper is an irregularly shaped space measuring about one-half inch supero-inferiorly and antero-posteriorly. Its depth from the drum to the inner wall varies from two mm. at the umbo to four mm. in the postero-superior portion. This is of special importance in view of operations on the drum and the danger of injury to the inner wall.

The ***roof*** or *Tegmen Tympani* is formed by the antero-superior surface of the petrous bone, the *petro-squamosal fissure* being in the outer part and a fissure to the hiatus faloppi internally, while the tegmen, itself thin, is pierced by numerous veins to the superior petrosal and sigmoid sinuses, all paths of possible infection to the meninges. The *floor* is formed by a thin plate of bone separating the tympanum from the jugular fossa. The *outer wall* is formed *below* by the tympanic membrane inserted into the grooved margin of the tympanic ring and *above* by the cellular squama outside the epitympanic space. The *inner wall* presents the most interesting and most important markings of all the boundaries. From behind forwards there are: First, a ridge indicating the *external semi-circular* canal; second, a well defined ridge near the tegmen directed downward and backward, indicating the *facial nerve;* third, below the latter the *fenestra ovalis* closed by a membrane on which rests the stapes; fourth, the *promontory*, a rounded elevation opposite the umbo, indicating the first turn of the cochlea; fifth, the *sinus tympani*, a smooth depression below the fenestra ovalis at the back part of the promontory, corresponding to the ampulla of the posterior semi-circular canal; sixth, below the sinus tympani the *fenestra rotunda* closed by the *membrana secundaria*.

In front of the fenestra ovalis on the *anterior wall* is the opening of the canal for the *tensor tympani* muscle. Below this is a thin plate of bone, the *cochlear process* separating the former from the *eustachan* tube. This tube opens on a slightly lower lever than the antrum and measures one and one-half inches in length and about one-eighth inch in diameter and is wider, shorter and more horizontal in *early life*.

The *posterior wall* presents, first, from above a variable-sized opening which leads into the antrum; second, a depression for the ligament of the incus; third, the *pyramid* through which passes the stapedius.

The *ossicles* occupy a position in the upper part of the tympanum and form an interrupted irregular connection between the tympanic membrane and the fenestra ovalis. Covering these bones and lining the tympanic cavity in general is a very thin membrane closely adhered to the bone and continuous through the several openings into the tympanum.

*Internal Ear* (Labyrinth).—The internal ear consists of a bony cavity containing a membranous model floating in the perilymph, while it in turn contains the endolymph. This cavity is immediately to the inner side of the tympanum and is directed obliquely forwards and inwards and divided from behind into the three *semi-circular canals* opening into the middle part—the *vestibule.*

The *cochlea* is a spiral structure, its base directed backward and inward and is divided into two compartments, the *scala vestibuli* communicating with the vestibule at the base of the cochlea and at its apex with *scala tympani,* the lower compartment. Between these scalae is the membrana cochlea wound along the edge of the lamina spirilis.

*Physiology.*—Sound waves are collected and conducted to the tympanic membrane by the auricle and external auditory canal. These waves set in motion the membrana tympani, which in turn transmits them through movements of the ossicles to the membrane closing the fenestra ovalis on which the stapes rests. These to and fro movements act upon the perilymph in the vestibule, then in the scala vestibuli to the apex of the cochlea, thence down to the scala tympani to the membrana secundaria in the fenestra rotunda. The vibration of the perilymph is imparted to the endolymph in the scala cochlea in which is located the *Organ of Corti,* or the end organs of the cochlea division of the auditory nerve, which in turn conveys the nerve vibrations to the sensorium.

I realize that it has been necessary to abridge this very essential part of the work, but if you master this much it will be quite easy to comprehend the discussions on examination and diseases.

Black Bldg.

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# Current Comment

Chas. C. Teall, D. O.

### THE PAMPHLETEER OLD AND NEW

In the days of old when newspapers were scarce or absent the man with a message resorted to the pamphlet to reach his public. He had something to tell he considered worth while and was willing to risk his often none too plentiful store of coin upon its publication. From the pen of a Swift the pamphlet moulded the sentiment of a nation and became a mighty factor in the making of the British Empire.

But, behold, in modern time how hath the mighty fallen. From a pamphlet it has become a booklet and every hack writer with a gift turning a trite phrase or borrowing from forgotten sources is now turning them out at so much per without regard to the individual sentiment involved.

Whether one has taken any stock in the output of E. Hubbard of East Aurora or not, most of us have given him credit for common honesty and as having the courage of his convictions shown in his many publications.

It is, therefore, rather a shock to read his twenty-eight-page booklet, entitled, "The New Science." We had been led to think that he was a believer in osteopathy, for his several booklets on the subject which he had written and offered to us for a consideration, breathed a loyalty and admiration which must have taken in numerous buyers. But behold he writes:

> For the last five years I have studied, investigated and made myself thoroughly familiar with the science of Chiropractic. I have visited Chiropractic institutes and taken Chiropractic treatments personally, in order, if possible, to get an understanding of the very remarkable cures which I have seen effected through its treatment.
>
> You might think it a little strange that a well man should take a Chiropractic treatment. The fact is, however, that Chiropractic never brings an adverse result. Its tendency is to make the sick man well, and a well man better.

Mr. Hubbard has posed as a teacher and has thundered against sham and hypocrisy. He has berated the orthodox ministers as being whitened sepulchers for failing to preach the truth as he sees it; yet, for a few pieces of silver, he sells his talents to the common bidder.

This is the saddest part of the affair, for osteopathy has struggled along without his aid and will continue to exist even though he turns apostate, but he has forever lost the respect of all who know these facts.

He shows how little he knows on the subject when he says the chiro "never brings an adverse result." Prabably he was not shown the list of broken bones and fatalities which has marked the path of the great "discovery." Again he says:

> Curvature of the spine and impingement of the bony process on nerves is very, very common. This pressure of bone on nerves produces what Chiropractors call subluxation.

It is to be hoped that some day the chiro "colleges" will get hold of the works of Dr. McConnell, which would put them right on that question.

When Elbert startes out to tell a story he does not allow it to suffer by letting a little thing like facts interfere.

> Over a hundred years ago, certain German physicians discovered that in almost every disease there was a wrong adjustment or malformation in the spinal column. They began working to bring about a normal condition by means of manipulations. This manipulation was given the name of Chiropractic—*chiro* being the Greek word for "hand," and *practic* meaning that the method was practical, necessary, helpful.

For a time it seems that the practice of Chiropractic or right adjustment was lost. It drifted off into massage or passive exercise, and a great many ignorant but honest, and undoubtedly worthy, people engaged in the business of massage. These were nurses and attendants at the various spas throughout Europe.

Shade of the magnetic healer of Davenport, erstwhile inventor and one time promotor of and, at least, originator of the name chiropractic! how he must writhe even in the great Beyond to hear the ruthless voice of an ungrateful follower deny him in less than a decade. Elbert knew all this, but it sounds better to have the "made in Germany" sign on it.

And so, more in pity than in anger, we step aside and watch the passing of a supposed friend, who, it turns out, was attracted to us solely for personal gain. Let us watch for the next sucker he catches.

### UTERINE CURETTAGE

One of the signs of the times is the strong sentiment which is growing against curettage. It used to be looked upon as a most simple and harmless operation and indicated for about every pelvic disturbance.

Dr. Frank, in a recent *New York Medical Journal*, had a strong paper protesting against the practice.

I have used as a basis for my paper mainly 2,000 consecutive cases taken from my dispensary records, in which careful note was made of the number of curettings, and the reason for which this interference was practiced.

More than one patient out of every five had been curetted at some time!

This shows how common it is in the cities. Ordinarily it is considered good practice to follow abortion with a complete scraping of the uterus, but he says:

I have so often seen harm result from active interference, and, much more rarely, noted damage which could not be repaired, follow a Fabian policy. Doctor Pollack, of Brooklyn, has shown the courage of his convictions by putting them into practice. In the last fifty cases of puerperal sepsis, which include both post-abortive and post partum conditions, he has refrained from all local intervention, and so far his results shows a marked improvement over previous series.

At the very most a curette should be *lightly* and *sparingly* used. In the long run he will save more patients by non-interference than by even the lightest curetting.

In post partum cases he says:

Of 458 women who were curetted, in twenty the operation was performed post partum. According to my view I consider that the operation was performed exactly twenty times too often! Our hospital records show a far greater proportion because in this class of cases, particularly *after* the curettage, alarming symptoms develop and they are, therefore, at once transferred to such institutions. The mortality in this group is enormous.

In the *Journal of A. M. A.*, Dr. John B. Deaver writes of another class of cases under the title "Hemmorrhage of the Non-Pregnant Uterus," and makes this significant statement:

Again let me sound a warning against curettage and other forms of local treatment. They not only do no good but are distinctly harmful, and are the basis of many of the psychoneuroses that our friends the psychiatrists are revealing to us out of the old order of surgical neurasthenia.

In the same paper he has this to say, which is interesting and maybe some of it is true:

In this connection I should like to state my conviction that routine vaginal douches do more harm than good in most instances. They are one of the many forms of local treatment that increase the number of women suffering from the various sexual psychoneuroses. Many women, married and unmarried, can trace the development of sexual types of mental abnormalities to well-meant but injudicious local treatment. Women doctors are marked offenders in this direction with frequent, unnecessary vaginal examinations, weekly changes of pessaries, and the routine prescription of self-administered vaginal douches. Digital massage of the uterus is a favorite treatment of some osteopaths, with what disastrous results can readily be imagined.

Under the same title, in the *London Lancet*, we clip the following from an article on "Uterine Hemorrhage, with Special Reference to the Abuse of the Curette," by Beckwith Whitehouse, M. S. Lond; F. R. C. S., Eng.:

Futhermore, there is very little doubt that in a small proportion the symptoms are aggravated and made worse by the operation. These facts may be illustrated by a consideration of the after-histories of a consecutive series of cases noted at the General Hospital, Birmingham. By reference to the case-books I found that between the years 1908 and 1911 the number of cases of endometritis treated by curetting at the General Hospital was 52. These patients were written to, and special emphasis was directed to the question of uterine bleeding. The usual difficulty arose in tracing addresses and obtaining answers, but eventually 32 satisfactory replies to the questions were forthcoming. Of these 32, the number cured was 20, whilst 12 replied that they had obtained no relief from the operation. Two had been curetted twice and three thought that their symptoms were worse, in that, in addition to hæmorrhage and discharge, they now had pain. The results of curetting as regards hæmorrhage, when spread over the four years, are shown in the subjoined table:

| | 1809 | 1909 | 1910 | 1911 |
|---|---|---|---|---|
| Replies received.. | 3 | 10 | 10 | 9 |
| Cured ..... | 1 | 8 | 5 | 6 |
| Unrelieved ..... | 2 | 1 | 3 | 3 |
| Worse ..... | — | 1 | 2 | — |

In this table the percentage of cases unrelieved by curetting works out at 37.5 per cent. This percentage is probably too high, as the number of cases involved is small. I therefore refer you to a paper on the results of curetting in cases of chronic endometritis, by Dr. A. Donald and Dr. W. Fletcher Shaw, in the Transactions of the Obstetrical Section of the Royal Society of Medicine, 1910. This article deals with the after-results of 267 curettings, one year at least having elapsed in each case since the operation. On the present occasion we are only concerned with those results affecting uterine bleeding. Under the heading menorrhagia I find that from a total of 112 patients 20.5 per cent. showed no improvement after curetting. Analysing this percentage a little more in detail, in both married parous women and virgins, the percentage of failures is the same—viz., 22.7. In the case of sterile married patients the percentage is only 12.5,

but the number of cases quoted is about half that of the former group, and the figures are therefore possibly too low. Similarly, where metrorrhagia was a prominent symptom, it was found by the authors quoted that out of 42 patients 19.1 per cent. received no benefit from curetting. Without referring further to statistics it will be evident that curettage fails to cure at least 20 per cent. of cases involving uterine bleeding, and usually classified as "chronic endometritis." It is this 20 per cent. of failures that I propose to discuss in the present paper.

In the case of bacterial infections I have obtained good results by intra uterine applications such as peroxide of hydrogen, Churchill's iodine, or protargol. Treatment in these cases must be thorough and prolonged. The curette under such circumstances should, I consider, be absolutely tabooed.

Such, then, is a somewhat brief consideration of a group of cases which I believe are of considerable importance to those of us who are called upon to treat the special diseases of women. If all our patients suffering from excessive uterine bleeding could receive the benefit of a detailed examination before resort is made to the curette, I feel sure that it would lower the 20 per cent. of failures previously referred to, and help to prevent the operation of curetting from falling into discredit.

Under the caption of "Diseases of the Fallopian Tubes," in the *Journal of A. M. A.*, Dr. Boldt has this to say:

A woman may have no other reason than steriliy for consulting a physician, but a careful bimanual examination would show the presence of thickened fallopion tubes, which need not be at all sensitive on examination. An interview with the husband would reveal that he had had, before marriage, an attack of gonorrhea. Intra-uterine treatment, so-called "tinkering," in such cases, may be fraught with dire result. The same may be said of a curetting, on operation particularly frequently done by family physicians, for the cure of sterility. I have seen several patients die as the result of this supposedly "safe" operation. I have also a few times, as the consequence of such local treatment, seen the necessity arise, later, for the removal of the adnexa.

In connection with this, I wish again to call attention to the danger of ever using the curet, in instances of gonorrheal infection, if there is the slightest evidence of tubal affection.

Again from the *Lancet*, we clip from a paper by Dr. McCan on the "Surgical Treatment of Sterility in Woman," this except:

A sterile woman still clinging to the hope of maternity, going hither and thither for treatment, will sooner or later be curetted. And yet with increasing experience I am convinced that this operation has definitely limited indications as a method of treatment. Nay, more, I believe it to be in not a few instances distinctly harmful. In the treatment of primary sterility it is rarely indicated; in the acquired form it has a limited sphere of usefulness. All are familiar with the association of spasmodic dysmenorrhœa and sterility: you relieve the dysmenorrhœa and pregnancy follows. For this purpose dilatation of the cervical canal is required, not curetting. Indeed, in a few instances, especially where menstruation is scanty, complete cessation of the menstrual flow has occured after curetting. Again, after vigorous curetting partial and complete obliteration of the uterine cavity has supervened. Although the curetting may not produce these results, yet it is unnecessary and should not be done. It is indicated in cases of what is termed chronic glandular hypertrophic endometritis associated with free menstrual loss occurring in a uterus normally placed and where no tubal disease exists. Pregnancy may follow curetting for this condition and such cases are well known. Before, however, any scraping operation is undertaken a careful bimanual examination should be made under an anæsthetic in order to exclude the possibility of the existence of tubal disease.

In the acquired forms of sterility curetting is only indicated when the uterus is normal in position, when the appendages are free from disease, and when free menstrual and intermenstrual discharge point to some morbid condition of the endometrium.

And so it would seem that about the only use for the curet is as an aid to early diagnosis of uterine cancer:

Siredey and Lemaire have made a practice in the last few years of an exploratory curetting of the uterus on the least suspicion of cancer, and they thus incipient malignant disease in eight cases before there were any reliable symptoms of the cancer. In three other cases irregular hemorrhage and a red, bleeding lump on the cervix, with abdominal pain and retroflexed uterus rendered cancer almost positive in one case, but the microscope showed ordinary metritis, and in this as in the two others of hemmorrhagic inflammation the trouble proved to be non-malignant and subsided after curetting.—*Annales de Gynecologie et d'Obstetrique, Paris.*

### DR. LYDSTON WINS HIS SUIT AGAINST THE A. M. A.

We have just learned that the Court of Appeals of Illinois has reversed the decision of the lower court in Dr. G. Frank Lydston's suit against the trustees of the American Medical Association. It seems to be the opinion of the Appellate Court that the A. M. A. is holding meetings contrary to law, that its elections and delegate system are illegal, and that every member is entitled to a direct vote.

Unless this decision is reversed by the Supreme Court this means that for fifteen years the A. M. A. has been doing business illegally; and a complete reorganization will be necessary, this time on a thoroughly democratic basis. It seems that Dr. Lydson succeeded in getting in the courts an audience which he could not get elsewhere. Events crowd one another. What next?

The *American Journal of Clinical Medicine*, that tyrannical combination of medics than has that tryannical combination of medics than has Dr. Lydson.

### OSTEOPATHY IN THE MEDICAL PRESS

The *Medical Council* has this to say, which shows a very fair and open mind in marked contrast to most medical publications:

The Osteopaths are entitled to credit for establishing, in Chicago, a research institute along the lines of structural derangement as a cause of disease, and of adjustment as a therapeutic agent. They should elicit some useful facts.

In the same journal a chap, who is just as mad as mad can be, rises up and delivers himself of the following:

### OSTEOPATHY PLUS

Editor Medical Council: I note what you say about the Osteopath. These people are getting altogether too smart. Many of them have added medicine and surgery to their rubbing stunt, contrary to law. A patient called yesterday and told me that he had been taking treatment from an Osteopath for syphilis. I found that he had given him an injection of "606" between the scapulæ, with the result that now the site of the injection is occupied by a large

tumor., which will have to be excised.

Joplin, Mo. F. A. Wier, M. D.

If the irate medico had followed the career of the famous "606," he would know that a tumor is not the worst thing that could happen to one after being injected with that specific, and from the hands of the just and duly qualified injector, too. The worst that can be said about this letter is the poor judgment shown by an osteopath in using the stuff.

### REFLEX CONTRACTIONS OF THE LARGE INTESTINE AND REFLEXOTHERAPY

H. Lebon and P. Aubourg, in the *Presse Medicale* of August 23, 1913, stated that they had ascertained, upon administering castor oil, then a bismuth suspension, and finally examining the subject with the x-rays, that electrical stimulation of the right pneumogastric nerve in the neck caused contractions of the ascending colon, sufficiently marked to be plainly visible on the screen at each excitation of the nerve. Similar stimulation of the crural or sciatic nerves produced little or no change in the colon. Upon applying one electrode to the right pneumogastric and introducing the other into the stomach as a sound, spasm of the ascending colon occurred. Vigorous percussion of the seventh cervical spinous process was found to cause the cecum to rise and the ascending colon to become broader; such effects were observed in all persons examined except one—a woman with marked enterospasm and constipation. Percussion of the dorsal spines had no effect on the colon until the lowest ones were reached; percussion of these, or of the lumbar spines, brought about contractions of the colon in all its divisions. The authors believe that percussion of the lowest dorsal and lumbar spines, or vibratory massage of this region, may be of service in the treatment of constipation, whether due to muscular weakness, insufficiency of intestinal reflexes, inhibition of the bowel contractions, or enterospasm.

Will someone rise and explain the meaning of this? How dare anyone hammer the spine and not call it spondylotherapy? Reflexotherapy, indeed! Don't those Frenchmen know that our own J. Madison Taylor had that name all thought out a long time ago? Well, anyhow, the poor, old, abused and discredited backbone is coming into its own and the man who put it on the map gets the usual reward of the genius.

### THE SANITARY RECORD OF THE SECOND DIVISION OF THE U. S. ARMY IN TEXAS

Under this title Dr. Miller gives an interesting account and makes the following suggestions:

The principal sanitary requirements for a camp of this kind are, generally, as follows:

1. An ample supply of pure water.
2. An efficient system of excreta disposal.
3. Protection of the command against typhoid and smallpox by vaccination.
4. The prevention of soil polution.
5. The prevention of dissemination of disease by flies and mosquitoes.
6. Means of insuring personal cleanliness.
7. Phophylaxis against venereal disease.

It would be interesting and throw a good deal of light on some much mooted questions if two camps could be conducted in the same locality; one with all his requirements and the other with No. 3 left out.

### MODERN STATUS OF MEDICAL SCIENCE

The medical profession has for generations been pampered by a public faith in drug medication, while there has been more or less professional scepticism in their curative action, which has been increased by pathological research. The excuse was want of knowledge of other means. This imposition on public confidence has led to a condition of the public mind bordering on distrust of the profession. This state of mind has been aggravated by the open expressions of Osler and others who have boldly told the truth, and has led to a tendency on the part of the public to seek relief from irregular practitioners and those who employ physical or psychic methods of treatment, because they appeal more strongly to public credence. The intelligent layman is demanding a square deal, and the profession were never more disturbed by the evidences and expressions of want of confidence.

The above is from *The Journal of Advanced Therapeutics*, from which we make frequent quotations. Its editor does not love the allopathic machine.

### MAIL COURSE IN APPENDECTOMY

The *Journal of Clinical Medicine* conducts a query department and the following is the most remarkable question we have ever seen propounded by a medico in any medical journal:

Query 5950.—"He Would 'Operate for Appendicitis.'" W. S. W., Georgia, tells us that he has never performed the operation for appendicitis, and wishes we would give him (in detail) the exact method of operation, and continues:

"How long must the incision through the abdomen be and in what location? Be exact, please. What is the antiseptic technic—*in detail?* How are the dressings arranged and the drainage-tubes placed, and what is best material for the same? Don't leave me to presume anything about it, from start to finish, but give everything in full, please. Is there any previous preparation of the patient in the way of dieting, bowel flushing, etc.? Give me the technic when pus is present and when it is not. I wish to know it all, from start to finish."

If there is an osteopath in the city that is fortunate to harbor "W. S. W." and his tremendous intellect, we are willing to make a small wager that its citizens are regaled with wonderful stories of the lack of training and general shortcomings of the osteopath in general and that local one in particular. The editor lets him down easy, as follows, in part:

Frankly, doctor, we would most earnestly advise you *not* to attempt doing an appendectomy. We can readily see, as you state, that you know nothing whatever of this work, and it would be highly dangerous—yes, improper—for you to attempt the operation. You would most certainly lay yourself open to a suit for malpractice.

We do not understand, however, why it is that you "fail to find the desired information" in your textbooks, as you declare, when every work on surgery devotes considerable space to this subject.

### "THREE APPLES A DAY"

The *Canadian Practitioner*, in reporting the transactions of the "Internation Medical Congress," gives the following:

In the course of the discussion, Dr. King, of New Zealand, emphasized the overwhelming importance of the subject. From personal observation he could confirm the importance of, and the great benefit derivable from three apples a day, one after each meal. He remembered one doctor at a big New Zealand hospital, when spoken to on the subject of dental disease, saying: "There is no doubt that people who come here for treatment for appendicitis do have most shocking teeth."

Mr. J. F. Colyer remarked that the Government had passed a bill to prevent little boys smoking. If they had brought in a bill to shut up sweetstuff shops they would have done more good for the country. The question under review should be tackled from the point of view of public instruction. School clinics were absolutely a waste of money at present. By all means watch children's teeth, but also get the mothers there and instruct them. There should be a Minister of Public Health to deal with these matters.

Mr. Arthur T. Pitts said that to change the diet of a country was a tough proposition. But it was possible to teach mothers the importance of oral hygiene.

Mr. Lewin Payne said that what they must aim at was to restore functional activity, and get people to do what nature intended them to do. That could be done very largely by instruction.

SCIENCE AN ICONOCLAST

This short editorial from the *Journal of A. M. A.* would seem to require an answer, and if it is up to us to do it we would say that serums and vaccines were the next candidates for the can. The thing to go first is usually the one most exploited at the moment.

We recently commented on the part imagination has played in scientific advancement. Instances were quoted in which the metaphors of early writers have become established as facts by science. Sometimes the foreshadowing may seem almost prophetic; no doubt it is often mere accident. Science hews to the line no matter where the chips may fall. Often an idol of the earlier epochs of thought is shattered. Thus we sought to avoid "colds" by avoiding all contact with cool fresh air. Now, he who seeks to avoid infection of the respiratory tract wears light clothing and breathes air fresh from the open. A generation ago calomel was given to stir up the liver and increase the flow of bile. Now pharmacologists agree that whatever virtues calomel possess, it is not a cholagogue. When we were boys candy and sweets were withheld from us as things productive of many serious derangements. Now pediatricians allow plenty of sweets as an essential part of the diet for children. Not long ago we were taught to avoid drinking water with meals, as the excess of fluid diluted the digestive juices and kindered digestion. Now it seems to have been demonstrated that water taken with meals aids digestion and facilitates absorption. And so it goes.

## BOOK REVIEWS

Medicolecal Aspects of Moral Offenses.—By L. Thoinot, M. D., Professor in the Medical Faculty of Paris. Translated from the original French and enlarged by Arthur W. Weysse, A. M., Ph. D., M. D., Professor in Boston University. 8vo. of 487 pages. Illustrated with seventeen engravings, including four charts and diagrams. Philadelphia, F. A. Davis Company, 1913. Cloth, $3.oc.

The object of this book is "to bring up to date the whole question of moral offenses, some parts of which have taken on a singularly different aspect since Tardieu's classical and original work, and to create familiarity with the whole question almost denied yesterday, and still unknown to the majority of physicians and students despite its triple interest—clinical, psychological and medicolegal." One is impressed with the author's remarkable clearness of thought and admirably scientific method of handling a subject that is so difficult for all of us to free from preconceived opinions. His principles, his deductions, are all based on actual, cited cases, and this method of treating the subject has, in addition to its pedagogic value, the great virtue of lending human interest to dry principles.

Prevenitive Medicine and Hygiene.—By Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Harvard; formerly Director of the Hygienic Laboratory, U. S. Public Health Service. With chapters upon Sewage and Garbage, by George C. Whipple, Professor of Sanitary Engineering, Harvard; Vital Statistics, by Cressy L. Wilbur, Chief Statistician, Bureau of Census, Department of Commerce and Labor; The Prevention of Mental Diseases, by Thomas W. Salmon, Director of Special Studies, National Committee for Mental Hygiene, etc. 1,074 pages; fully illustrated. Price, $6.00. New York and London, D. Appleton & Company, 1913.

In this "age of prophylaxis" the physician needs to be thoroughly equipped with the most recent views on the subject of Hygiene and Sanitation. Within the past five years ideas and practices along this line have been so modified or altogether abandoned that one feels the need of a new authority on this important subject. After twenty-three years of practical experience and intimate acquaintance with the most recent investigations, Dr. Rosenau has written this excellent work dealing with every phase of the subject. He considers the subject of preventive medicine from two viewpoints: from that of the individual, and from that of his environment. The work is divided into twelve sections, as follows: Prevention of the communicable diseases; immunity, heredity, and eugenics; foods; air; soil; water; sewage disposal; refuse disposal; vital statistics; industrial hygiene and diseases of occupation; schools and disinfection. This volume will be of service to public health officers and all physicians who desire a work of high standard.

C. N. Clark, D. O.

# Correspondence

## WINS OVER MEDICAL MEN IN ILLINOIS

I was summoned to appear before the Justice Court of Douglas County, Illinois, on September 22, 1912, to answer to the charge of practicing medicine and surgery without a license. No definite case, or cases, were specified in the original declaration, so my lawyers began on a brief looking toward compelling the prosecution to file a specific charge —a Bill of Particulars.

At the first trial we won our point, the Justice having ordered the prosecution to file a Bill of Particulars not later than September 25th, and continuing the case until September 30th. The Bill, as filed in response to this court order, was in no sense a Bill of Particulars, being simply a reiteration of the former charge, and under which blanket charge it would have been possible to subpoena every patient I had ever treated, when a fine could have been imposed if any infraction of the law could by any possibility have been uncovered.

Because of this fact, and that the prosecution had failed to obey the order of the court to file a Bill of Particulars, the case was summarily dismissed. As the prosecution failed to appeal from the decision of the court, this dismissal should have constituted a Judgment at Bar, so lawyers affirm, and the case should thus have been closed. However, the case was again opened in the Circuit Court, on March 22, 1913, when the Court ruled adversely to us on this point, and the case came to trial.

The charge, as it finally came to trial, was that I had reduced a fracture of the humerus. In this trial the attitude of the court was palpably favorable to the prosecution; all evidence in the nature of heresay and opinion being freely allowed to go before the jury. For instance, one witness, who testified that he had neither seen nor examined the arm, was not only allowed, but was rather forced, to testify that he had been told that the arm was broken. At the conclusion of the taking of testimony, the Court, in turning the case over to the jury, instructed very strongly to convict, yet they awarded a verdict of "Not Guilty," and because of the fact that they did not obey his instructions the Court allowed the plea of the prosecution for a retrial, the arguments for this being made on March 30th, 1913.

In allowing the new trial the court seemingly forgot that the burden of proof rested with the prosecution, saying that the defense had not introduced any refuting testimony. On November 17th, the case again came before the Circuit Court, when the court, of his own initiative, reversed the rulings of the former court, excluded all opinion and heresay from the testimony, informed the prosecution that they had failed to substantiate the charge as made in the original declaration, that there was not sufficient merit in the case to justify placing it in the hands of the jury, and that their verdict would therefore be "Not Guilty."

There is now nothing for the prosecution to do except to appeal, and as they have practically nothing on which to base an appeal, it is generally conceded that they will not have sufficient courage to do so, in the face of our having won three sucessive and signal victories in the lower courts. We might add that in this case the family of the injured boy was with us to the finish, and that we are still their family physician.

We wish to hereby acknowledge our appreciation of, and indebtedness to, G. R. Ingram, Anna M. Mills, and J. A. Nowlin, for their untiring efforts and interest in our behalf throughout these entire proceedings, and to our Attorneys, W. W. Reeves, of Tuscola, Ill.; Ed. Craig of Mattoon, Ill., and L. R. Herrick, of Farmer City, Ill., for the splendid services rendered for us in this case. It gives us pleasure to commend these attorneys to any member of the profession who may be so fortunate (the word is used advisedly) as to incur the wrath of the medical trust.

Tuscola, Ill. J. A. Overton, D. O.

## COMMENDS PRESS BUREAU'S WORK

I feel that members of the profession should know of the very efficient way in which the press reports were handled at our recent Convention at Albany by R. K. Smith of Boston, Director of the Press Bureau of the A. O. A.

A very serious problem to solve has always been how to get the reports of meetings to the press in an acceptable form and at the same time have them attractive and interesting from the standpoint of the profession.

Dr. Smith is experienced in newspaper work so that he knows what the press requires; on the other hand, he has the interests of osteopathy at heart and is in a position to give to the public what they should know about osteopathy and the work done at our various conventions.

The thought of securing the services of Dr. Smith in reporting our Convention did not come until a few days before the meeting, therefore he did not have much time to prepare but I wish to say, after reading copy from many papers and receiving many favorable reports from members, that never before, to my knowledge, have we had such extensive and attractive newspaper notices of a meeting.

I believe any state or district society which does not grasp the opportunity to co-operate with the A. O. A. Press Bureau in this regard when it holds an important meeting, is making a big mistake.

I do not wish to presume to plan for the Press Bureau, but want to say this, while it is impossible for Dr. Smith to attend all meetings in different parts of the country, he can, I believe, outline plans for all and co-operate with press committees from every society.

The Press Bureau is a new venture. Give it a chance to develop and I am sure much good will result. G. E. Philips, D. O.

*Retiring President N. Y. O. S.*

## URGES SUPPORT FOR PRESS BUREAU

As one who has had the best interests of the profession at heart, first, last and all the time, and has worked for a higher standard for osteopathy both in the profession and out, often at the sacrifice of time and money; and sometimes with little co-operation so far as local matters were concerned, I want to heartily endorse among other most valuable departments of our national association, that of the "Press Bureau."

It is partly from the lack of not having had something like this before that has made people inquire if osteopathy is as much today as it used to be ten or more years ago. They see little or nothing in the papers and our local associations have failed to appreciate, or if they did appreciate, have had no one to turn to for assistance in the matter of newspaper publicity.

Now, I note in a letter from our esteemed and faithful worker, Dr. Ralph Kendrick Smith, who is at the head of this "Press Bureau," that this bureau needs funds for postage and clerical help. I want to urge upon us the need of supporting the work. If the national organization cannot finance it, then as individuals we should do it, so that the work may be more efficient and that Dr. Smith, who has so willingly proffered his valuable time to this large and important work, can give his time to the real work and not to details.

Leslie S. Keyes, D. O.

Minneapolis, Minn.

## GOOD SUGGESTION FOR DIRECTORIES

As a suggestion to the various Committees on Publicity, I wish to mention what we are doing in Denver with the publishers of the official City Directory.

Upon protesting to them against publishing in their classified list of Osteopathists some who are not legitimate practitioners, they have agreed to publish only the names of those certified to by the officers of our city association. In this way we hope to keep a correct list of the members of our profession before the public. Jenette H. Bolles, D. O.

## Among the Societies

California.—The bi-monthly meeting of the Sacramento Valley Association was held October 4th, when the following program was carried out: "Rib Lesions, Diagnosis and Treatment," J. P. Snare, Modesto; "Reports from the A. O. A. Convention," H. F. Miles, Sacramento; "Lumbago," J. C. Rule, Stockton. The next meeting will be held in Modesto in December.

Colorado.—The Denver Association met with Ralph M. Jones, November 1st, and elected officers for the coming year as follows: President, J. T. Bass; Vice-Presidents, Carrie A. Bennett and John L. Cramb; Treasurer, Cara C. Richards; Secretary, H. Agnes Dandy.

Following this the program consisted of an address, "What is an Osteopathic Treatment," G. W. Bumpus; "Diagnosis and Technique," demonstration by F. A. Luedicke and J. L. Cramb. The Trustees propose to make this the best year of the association's work for osteopathy.

H. Agnes Dandy, D. O., *Sec'y.*

Illinois.—The Chicago Association held its regular monthly meeting November 6th, with F. N. Oium of Oshkosh, Wis., as the speaker who presented "The Osteopathic Version and Care of Erysipelas," and urged upon those present that cases of this disorder be accepted, and emphasized the efficiency of osteopathy in all acute conditions. George E. Moore of Des Moines, who had lectured before the Chicago College of Osteopathy in the afternoon, brought out an interesting discussion of the paper, which was followed by further discussions from Drs. Stewart, Maltby and Carpenter.

S. V. Robuck, chairman of the Clinic Committee, reported the establishing of the Chicago clinic at the Jefferson Park Presbyterian Church, Adams and Throop Streets, under the management of the association through which it is hoped to widen the field of osteopathic influence. Drs. Moore and Maltby heartily commend the work Dr. Deason is doing through the A. T. Still Research Institute and they urged upon all to avail themselves of this wonderful source of information.

Nettie M. Hurd, D. O., *Sec'y.*

The Chicago profession is greately interested in the re-organized college, which this year numbers over fifty new students. The spirit among the students is reported to be splendid and the outlook seems remarkably bright.

The Pi Alpha Beta Fraternity of the Chicago College held an initiation and banquet at the college building November 4th. Several new members were taken into the fraternity and the banquet was attended by about thirty members.

Dr. Blanche Mayes Elfrink, Professor of Obstetrics in the Chicago College of Osteopathy has been spending several weeks in Lying-In-Hospital of New York, studing along her special line and speaks in glowing terms not only of this new institution but of the work it offers.

The Kappa Psi Delta Sorority of the Chicago College held its regular meeting with

Dr. Myrtle Fryette, October 24th. The attendance was large and arrangements were made for the election of officers at the next meeting. The Sorority entertained the women members of the Chicago College at the home of Dr. Jessie O'Connor on November 10th. The attendance from the under classes in the college was excellent.

The Rockford Society on November 13th adopted resolutions endorsing the stand taken by the *Chicago Tribune* in exposing certain doctors. The meeting was held with A. C. Proctor, and M. Elizabeth Shupert presented as clinic a case which had recovered from Rheumatic Fever.

*Indiana.*—At the annual meeting held in Indianapolis, November 5th, in addition to the program published in the last issue, the following officers were elected: J. E. Derck, Ft. Wayne, President; Emma Nugent, Indianapolis, Vice-President; W. C. Montague, Evansville, (re-elected) Secretary; Mary Ewing, Clinton, Treasurer. The next meeting will be held in Indianapolis in May.

Iowa.—At the Third District Association held in Keokuk, October 30th, the following officers were elected: President, C. J. Chrestensen, Keokuk; Vice-President, H. H. Smith, Olds; Secretary-Treasurer, F. C. Card. Ft. Madison. The next meeting will be held in Fort Madison.

The Seventh District Association held its semi-annual meeting in Des Moines, October 30th. An attendance of between fifty and sixty showed keen interest in the following program:

"Industrial Diseases," A. V. Mattern; "Near Surgery," A. E. Dewey; "The Technique of the Upper Dorsal Spine," H. M. Ireland; "The Osteopath's Attitude Toward the Counterfeits of Osteopathy," J. W. Macklin; "The Mental Element in Therapeutics," Wm. Stryker; "Parasympathetics," C. W. Johnson.

Between the afternoon and evening sessions a pleasant social hour was spent at a banquet served at the Y. M. C. A. building.

The next meeting will be held in Des Moines in the spring.

Bertha M. Gates. D. O., *Sec'y.*

Missouri.—The Ozark Association met November 19th with B. L. Dunnington, Springfield. Those present voted to subscribe for the new osteopathic magazine. The meeting discussed "Osteopathic Technique Applied to the Third Cervical in its Relation to Various Diseases of the Eye, Ear, Nose and Throat." The subject was handled by T. M. King. G. E. Corey discussed "Mal-Positions of the Innominate" and demonstrated methods of correction. The meeting for December will be held with I. L. James, Springfield.

New York.—The New York State Society held its greatest meeting in Albany, November 14th and 15th, the publicity feature of the meeting referred to by the retiring President, G. E. Phillips, elsewhere in this issue, was particularly effective and satisfactory. R. K. Smith, director of the Bureau of Publicity, of Boston, was in charge of this feature.

Frank C. Farmer, of the Chicago College of Osteopathy, discussed, "Physical Diagnosis" and examined clinics; W. A. Merkley, Brooklyn, discussed "Osteopathy in Acute Practice," and demonstrated technique; L. von H. Gerdine, American School of Osteopathy, Kirksville, "Diagnosis of Mental Diseases," with clinic. This was followed by several demonstrations of technique: "Cervical Region," William Craig, Ogdensburg; "Dorsal and Ribs," Walter W. Steele, Buffalo; "Lumbar," Clinton D. Berry of Rochester; "Pelvis," John A. DeTienne, Brooklyn.

At the night session, S. A. Ellis of Boston described his recent African hunt and search for large animals and gave as illustrations pictures taken by his party, which were considered remarkably fine. His lecture was greatly enjoyed by all present and highly featured in the press reports. This was followed by a business session, at which Charles S. Green of New York was elected President; H. D. Sweet, Glens Falls, Vice-President; G. W. Webster, Carthage, Treasurer; Robert H. Graham, Batavia (re-elected) Secretary. Directors, G. E. Phillips, Schenectady; John A. West, New York; Albert Fisher, Syracuse.

At the second day's session, L. von Gerdine, Kirksville, discussed "Diagnosis of Nervous Diseases;" J. Deason, Director of the A. T. Still Research Institute, Chicago, discussed, "The Practical Value of Osteopathic Research;" Charles C. Teall, Fulton, "The Menace of the Imitator."

This was followed by sections in Technique: "The Cervical Region," Ralph C. Wallace, Brockport; "Dorsal and Ribs," Ralph H. Williams, Rochester; "Lumbar," Mary S. McDowell, Troy; "Pelvis," L. J. Bingham, Ithaca.

At the afternoon session, Professor Rex B. Reeder of Hastings-on-Hudson, discussed "How We Keep Two Hundred and Fifty Children Well;" followed by "Osteopathy and the Child," Charles C. Teall, Fulton; "Physical Diagnosis with Clinic," Frank C. Farmer, Chicago.

The program concluded with sections in Preventive Technique: "Cervical Region," S. C. Matthews, New York; "Dorsal and Ribs," H. L. Russell, Buffalo; "Lumbar," Carl D. Clapp, Utica; "Pelvic," Irene Bissonette, Buffalo.

Among the features of the meeting was the splendid display of exhibits, representing at least a dozen different firms.

The annual meeting of the Hudson River North Association was held with W. M. Smiley, Albany, and the following officers were elected for the year: President, Alice A. Brown; Vice-President, Elizabeth Frink; Secretary-Treasurer, Frances A. Perry, all of Troy.

The November meeting of the New York City Society was held on the 22d, when the following program was presented: "Diet as an Aid in Osteopathic Treatment," John W. Banning; "The Necessity of Strictest Dietary Measures in Acute Diseases, T. D. Lockwood; Diet in Auto-Intoxication and Chronic Diseases," Curtis H. Muncie; "The Jireh Foods," D. W. E. Fitch, Medical Director of Jireh Diabetic Food Co.; "My Experience with the Jireh Foods," Delia G. Knight; "Cases Where I Have Used the Jireh Foods," J. B. Buehler; "Care in the Selection of Patent Foods," S. C. Matthews; address, "Food Values," Miss Alice Lakey.

The meetings are held in the Murray Hill Hotel, Park Avenue and Fortieth Street, and at the December meeting to be held on the 20th, Mr. Harry Tipper will discuss "Professional Efficiency."

Prosecutions have been instituted against a number of Chiros in the state, but without result. When brought before the jury they practically plead guilty, but the juries seem to look upon it as persecution and refuse to convict.

Ohio.—The Miami Valley Society met in the College Club rooms at the Burnet House in Cincinnati, November 7th. L. von Gerdine was the speaker, and gave a very interesting and instructive address on "Diagnosis," while he was examining several clinic cases. The meeting was well attended.

Clara DeG. McKinney, D. O., *Sec'y.*

T. L. Herroder, of Detroit, addressed the Northwestern Society, Y. M. C. A. Bldg., Toledo, November 5th, in regard to the working of free osteopathic clinics. His address was well received and it is hoped will result in the establishment of this excellent work in Toledo.

A banquet, which will eclipse the roaring good time had at the last meeting, will be held in connection with the Ohio state meeting at Columbus, December 30 and 31st, under the direction of three of the most successful "socialists" in captivity—Drs. C. V. Kerr, O. G. Stout, and Mary Dyer. See program of meeting in last issue.

L. A. Bumstead, D. O., *Sec'y.*

Oregon.—J. A. Van Brakle, who was recently appointed health officer of the County of which Oregon City is the county seat, has gained the first point in the test being made by the county medical society, contesting his right to serve as such officer, but the end is not yet.

The Portland Association held its monthly meeting in the lecture rooms of the new library, October 18th. Gertrude L. Gates was the speaker of the exening and gave from experience in work with the eighth, ninth and tenth dorsals and innominates, demonstrating her methods of correction.

Pennsylvania.—At a meeting of the Western Pennsylvania Association held on November 15th, plans were discussed for establishing an osteopathic hospital in Pittsburg. Reports were made that a considerable part of the $50,000 needed had been already paid in. The necessity of the hospital was impressed in an address by Harry M. Goehring.

At the program meeting held later, "Tubercular Peritonitis" was discussed by Arthur M. Flack, dean of the Philadelphia College; "Disorders of the Sacro-iliac and Their Relations to Spinal Curvature" was discussed by E. H. Hansen, Pittsburg; "Exercises Beneficial to Spinal Curvature," by Nellie Marcy, Sharon; "Treatment, Surgical and Osteopathic," with demonstration, Roland Caryell, Brookville; "Emotions as a Factor in Disease Conditions," W. L. Grubb, Pittsburg; "Jurisprudence," J. C. Foster, Butler; "Pathology in Practice," Arthur M. Flack, Philadelphia; "Osteopathic Specialties," William Rohacek, Greensburg. Round table conducted by Elizabeth Sash, Meadville.

The Northeastern Association held its regular meeting with M. C. O'Brien, of Scranton, when the following program was presented: "Pleurisy," Margaret Evans, Scranton; "La Grippe," Edna MacCollum, Wilkes-Barre; "Serums and Antitoxines," M. C. O'Brien.

The Philadelphia County Society held its monthly meeting with the Philadelphia College, November 20th, when D. S. B. Pennock, Professor of Obstetrics of the College, was the chief speaker. His subject, "Practical Obstetrics," was well illustrated with the aid of drawings and the imported manikin of Buden-Pinard. He also demonstrated the use of the cranioclast on a foetal cadaver. About seventy-five members were in attendance and it was voted one of the most instructive meetings held. In the absence of the President, S. P. Ross, F. W. Kraiker, Vice-President, presided.

W. Armstrong Graves, D. O., *Sec'y.*

Southwestern.—The program has been prepared for the Southwestern Association to be held in Wichita, Kansas, December 29th and 30th, and among some of the interesting features, the following are noted: "Scoliosis and Abbott's Method of Correction," Wm. M. Koons, Herington, Kans.; "Special Cases," E. B. Waters, Wichita; "Gynecology—Osteopathic and Other Methods," Gertrude Farguaherson, Wichita; Discussion, Mollie Howell, Wellington; Florence Barrows, Kingman; "Febrile Diseases," Viola Orr, Newton; Discussion, W. L. Conver, Anthony; C. E. Willis, Wichita; "Laboratory Diagnosis," G. W. Owens, Topeka; "Border Line Cases Between Osteopathy and Surgery," S. L. Taylor, President Still College, Des Moines.

Afternoon session, "Recent Medical Progress and the Signs of the Times," Carl P. McConnell, President Chicago College of Osteopathy; "Section in Surgery," S. L. Taylor; "Emergency Cases;" "Minor Surgery;" "Fractures." "Non-Surgical Emergency Methods," W. F. Nay, Enid, Okla. Discussion, L. S. Larimore, Caldwell; W. V. Smith, Harper; "Organo-Therapy," W. A. Cole, Oklahoma City; Discussion, R. A. Bower, Eureka; W. P. Hull, Iola.

Section in Osteopathic Mechanics, Technique Demonstration, C. P. McConnell; Clinics, C. P. McConnell and S. L. Taylor.

At 6.30 the annual dinner will be held, followed by discussions of professional subjects by C. E. Willis; S. L. Taylor, Myrtle P. Morrison, C. P. McConnell, H. C. Wallace. Following this will be held a business session, when the address by the president, P W. Gibson, will be given.

Second day's session "Physiology of the Nervous System in Relation to Osteopathic Practice," C. B. Atzen, Omaha; "Sections in Pediatrics:" "Significant Signs and Symptoms," Anna Appleby, Marion; Discussion, Josephine A. Trabue, Pittsburg; "Infant Feeding," Thos. H. Clover, Winfield; Discussion, Adele Doane, Parsons; "Sex Hygiene," M. A. Mitchell, Enid, Okla.; Discussion, P. C. Scabinger, Wichita; "Eugenics," P. W. Gibson, Winfield; Discussion, M. J. Beets, Wellington; "Tonsils and Adenoids," O. A. Orr, Newton. "Management of Pregnancy, Parturition and the Puerperium," G. J. Conley, Kansas City.

Afternoon session, Section in Nervous and Mental Diseases: "Characteristic Symptom Groups—Mental Diseases," F. E. Hastings, Pratt; Discussion, Ella Coltrane, Manhattan; Hugh E. Wells, Grenola; "Melancholia, Neurasthenia and Hysteria," H. C. Wallace, Blackwell, Okla.; Discussion, Gladdis Armor, Emporia; W. J. Koelling, Hutchinson; "Differential Diagnosis—Nervous Diseases," Eugene F. Pellette, Liberal; Discussion, W. S. Briscoe, Topeka; R. P. Carlton, Wichita.

Section on Osteopathic Mechanics, C. B. Atzen, Omaha, will demonstrate his particular methods. "Arterio-Sclerosis and Blood Pressure, J. E. Gibbons, Concordia; Discussion, J. W. Shearer, Abilene; W. S. Chiles, Salina.

Section in Surgery, George J. Conley, Kansas City: "Anaesthesia—Local and General;" "Duties of the Surgical Assistant;" "Asepsis and Antisepsis." Clinics, C. B. Atzen, G. J. Conley.

These meetings are intended to furnish practically condensed post graduate work, and a full attendance is urged. The sessions will open at 8.30 a. m. and continue until the late evening.

Vermont.—The Vermont Association held its annual meeting with William W. Brook in Montpelier, November 18th. The morning session was devoted to a discussion of osteopathy and a revision of the Constitution and By-laws of the organization was affected. At the afternoon session, the following officers were elected: L. D. Martin, Barre, President; A. L. Kelton, Montpelier, Vice-President; Fannie Carleton, Barre, Secretary-Treasurer; Executive Committee, W. W. Brook, Montpelier; G. M. Loudon, Burlington; H. K. Sherburne, Rutland; Legislative Committee, L. D. Martin, W. W. Brock, G. M. Loudon, Anna L. Kelton.

Washington.—The Eastern Washington Association held its quarterly meeting in Spokane, November 22. C. E. Abbegglen of Colfax presented a paper on "Eye, Ear, Nose and Throat Work." H. F. Morse, Wenatchee, discussed "Sputum in Diagnosis."

At the evening session, "Congenital Hip Dislocations" were discussed and X-ray views of cases were shown by Charles F. Eikenbary, M. D., an orthopedic surgeon of Spokane. "Pelvic Lesions," Frank Holmes, Spokane, followed by general discussion.

Carrie A. Benefiel, D. O., *Sec'y.*

W. E. Waldo was host of the King County Association at its November meeting. Nelle Evans presented an excellent paper on "Potts' Disease." The subject was discussed by J. T. Slaughter and A. B. Ford, the former maintaining that the treatment should be without casts, and the latter favoring casts. A spirited general discussion followed.

Several clinics were presented and a publicity campaign outlined. A large number of subscriptions were taken for the new osteopathic magazine.

Roberta Wimer Ford, D. O., *Sec'y.*

# Notes and Personals

### CHIROPRACTIC SUITS

At the recent meeting of the New York State Society, the Attorney General came before the body and announced that suits would be instituted against all fake osteopaths in the state. A few weeks later suits were brought to trial against several chiros in Syracuse, N. Y., but they all resulted in a verdict of not guilty. It appears that the defendants practically admitted practicing in violation of the law, but with the usual "cloud of witnesses" setting forth the great good they had received at the so-called doctors' hands, a verdict of not guilty was rendered in each of three or four cases.

In Edmonton, Alberta, about the same time, the Medical Association of the Province brought suits to exclude the chiros. The chiros were convicted at the first trial, but on a retrial, in which they were defended by a Member of Parliament, the case was dismissed. The case has been appealed, however, to the District Court, and a verdict against the chiros is anticipated.

In Roanoke, Va., a suit which had been pending against one of these practitioners came to trial on November 14th, and the case won by confining the evidence strictly to the points of law. The law states that no one shall hold himself out to treat or heal the sick or use the word doctor or healer or any such designation without license, and the prosecution in this case simply set up the fact that the defendent had done this. They did not call a witness to prove that they had been treated, etc., but simply on the fact that they were maintaining an office for that purpose and had no license. The prosecution then asked the court to cut out evidence which the defendant wished to offer as to the benefits of treatment, etc., which the court did, and the jury rendered a verdict accordingly.

This is no doubt the best ground upon which to bring the suit unless the law specifically requires that proof be presented that actual treatment has been given. The suits were brought and pressed largely by the osteopathic profession in the state, the Medical Board paying a small part of the cost.

### IMPROVED OUTLOOK IN ALBERTA

At a recent conference of the Senate of the University of Alberta, Drs. Albright and Ghostley, representing the osteopathic profession, secured from this body the ruling that osteopathic physicians may take the examination for license to practice in the Province upon the basis of a three year diploma of graduation and a preliminary high school diploma. This for the year 1914 only, examinations being held in March and September of each year. Beginning with March, 1915, the four year course will be required, excepting for three year graduates who have had two years or more practice.

Upon passing the examination, osteopathic physicians are given a membership license in the College of Physicians and Surgeons of Alberta and a license to practice osteopathy, obstetrics, minor surgery and major surgery, if properly qualified by an internship.

Osteopaths will have one and perhaps two members on the Senate Examing Board. The examinations are said be much easier than in the States, as only ten or fifteen per cent. fail to pass and an applicant may be conditioned in as many as three subjects and is only required to make an average of fifty per cent. Examination fee, $50.

Drs. Albright and Ghostley write that there are only six osteopathic physicians in the Province, which offers a most extensive and promising field, as there are already four cities in the Province with an aggregate population of more than 200,000 people. Osteopathy is well and favorably known and depended upon by the best people, and fakirs are few. In this connection it may be stated that in the early spring Drs. Mason of Lethbridge, and R. C. Ghostley, Edmonton, will open an up-to-date, thirty-seven room hospital in Edmonton.

The JOURNAL regards this announcement as most welcome news, for it appeared after the recent legislature had given the osteopathic profession a real recognition, that the Senate of the University proposed to rob them of their victory.

### SERUMS WITHOUT END

It is announced that Dr. Carson, of California, now has perfected a prophylactic vaccination against typhoid. This seems to consist of nothing more nor less than the sterilized blood serum taken from the veins of a person convalescing from typhoid fever. The Doctor claims that this will abort the attack if used after the diagnosis has been made and will prevent typhoid where subjects have been exposed to the infection.

Now comes Prof. Behring, who in 1892 created the anti-diphtheria serum, and announces that he has just perfected it so that it is a preventive as well as cure. Heretofore he has considered it a cure for the infected rather than a preventive for the exposed. The press dispatches state that the new serum is obtained by mixing diphtheria toxin with the antitoxin extracted from the serum of immune animals and the claim is made that it is entirely harmless.

The same dispatches announce that Professors Josué and Bellar have finished their experiments in vaccination against typhoid

and declare that "Typhoid is vanquished."

Now comes Professor Rappin of the Pasteur Institute of Nantes, who discovered a brand new baccillus which because of its fatality he calls "bacillus-hypertoxicus." It seems that in that part of France there have been some fatal poisonings and the Professor believes that he has discovered the cause in this new bacillus.

In dispatches from Berlin, however, of about the same time, come the reports "of disastrous results from the administration of anti-typhoid vaccine upon many Americans traveling in Europe." Many professors and well known men of affairs of America traveling in Europe have been vaccinated for practically every known disease, smallpox, diphtheria, typhoid, etc., and have been made dangerously and protractedly ill thereby. Maybe some day people will be willing to take a chance on meeting a few germs in the air or food in preference to having every known concoction injected into their veins. It does not appear to be either science or health.

### ANOTHER BIG ROCKAFELLER GIFT

Announcement is made that John D. Rockafeller endowed the Medical School of Johns Hopkins University with another million, five hundred thousand dollars. There is a string to the gift, however, to the effect that professors in the departments which share this gift must devote their exclusive time and derive their entire income from the teaching and laboratory work. It is announced that many of the professors and surgeons will greatly deplete their incomes if they continue to work under this new arrangement, as several of them have very large incomes from private practice.

A person with a good memory cannot fail to notice how history is repeating itself. This is the same position being taken by the Carnegie Foundation for the Advancement of Teaching and is the doctrine promulgated by School-Inspector Flexner. It is also as we recall the position taken by the A. M. A., that colleges which it recognizes must have a certain number of teachers who have no outside concerns or income. The New York Board of Regents appears to hold similar opinions in regard to the medical schools which it recognizes. It would not take a good detective very long to find out that the influence at work to bring about all this is one and the same and he could locate it and not consider that it was a task worthy of his skill.

Many educators are freely calling this movement an "Education Trust." Others will come to see things we have seen for several years.

### CHRISTIAN SCIENCE PRACTICE IN ENGLAND

The English courts have recently had to pass upon the same question that has been passed upon many times in the States, as to the liability of the parent if his child dies of an acute disease under Christian Science practice.

The court recently held that the father of a child which died of diphtheria, when treated by a Christian Science healer, was guilty of manslaughter. The Justice in directing the jury to bring in a verdict of not guilty stated that he gave those instructions because the case was not proven, but that if it had been proven a heavy sentence would have been imposed both upon the parent and the healer.

### THE BEST DENTIFRICE

According to Professor William J. Gies, of Columbia University, the average dentifrice is hurtful rather than helpful. He is quoted as saying that the alkaline preparations advertised are pressed by the people selling them and not by physiologists. He condemns all alkaline dentifrices heartily.

According to the Professor the acids found in the ordinary fruit juices form the ideal tooth wash. Unlike mineral acids, they do not readily attack the enamel. For instance, an orange may be eaten without damage to the teeth and the application of similar acid mixtures, followed by a prompt flushing of the mouth, cannot be harmful. But according to him, orange juice or the juice of other fruits renders nonadhesive all of the viscid and slippery gathering of the teeth, in which the chief danger of decay resides, and he maintains that these juices not only remove the destructive mucilaginous film about the teeth, but stimulate the flow of the salivary glands, which of itself has a notably antiseptic effect.

### ANOTHER FREE CLINIC IN THE ORANGES

From the *Newark Star* of November 17th, the following is taken:

"The second free osteopathic clinic in New Jersey will be opened tomorrow night under the auspices of the Visiting Nurses' Association of the Oranges, of which Mrs. Thomas A. Edison is president. Treatment will be given by Dr. Philip P. Cary, of 319 Main Street, East Orange, at 144 Valley Road, West Orange. It has been decided to give treatments Tuesday and Friday nights at eight o'clock.

"The association now conducts a similar clinic in Orange, which was opened some months ago."

(The last clinic referred to was established eight or ten months ago by F. M. Plummer, now president of the New Jersey organization, and has been very successful and has met with a steady growth.—Editor Journal.)

### GOVERNMENT DEPARTMENT ACTIVE

One of the Bureaus of the Department of Agriculture at Washington has become very

active in recent months. It is sending out to the press of the country, bulletins assailing patent medicines and contradicting various statements made as to the ruling of the department in cases regarding milk supply and food regulation, etc. Many of these pamphlets are very instructive and no doubt the department will send them to physicians interested.

REMARKABLE X-RAY WORK

From London comes the report that Dr. Hall-Edwards has perfected the X-ray technique to the point where by using the "low" tube and the "soft" rays that very delicate structures and membrances may be raidographed. As an example, he can photograph through this apparatus the contents of a letter sealed within the envelope.

DEATH OF NOTED SURGEON

Dr. Charles McBurney, the well known New York surgeon, died early in November at his summer home in Massachusetts. It will be recalled that Dr. McBurney, early in his career, gave attention to the operation for appendicitis and greatly advanced the technique of the same and located the point, which bears his name, where the greatest tenderness is likely to be found and the point of incision in operating.

DR. LAUGHLIN RECEIVES MUCH PRAISE

Saginaw (Mich.) newspapers devote considerable space to a clinic held on November 29th, in that city, when he performed the Lorenz operation on several cases, also the Abbott operation for scoliosis. A number of the physicians of the city were invited to see the operations and one in particular is quoted as saying that he had had work under Lorenz and Hoffa, but that the work done by Dr. Laughlin was superior to any that he had seen.

A LESSON FROM ENGLAND

Regarding the *Osteopathic Magazine* and Publicity, the profession will, no doubt, be interested in the fact that one of the members of the British Society, who attended our Kirksville meeting, subscribed for twenty-five copies and paid an equal amount for publicity and later subscribed for an additional list, making a subscription of sixty. So far as we recall this is the largest list subscribed for, and many of our members in the States should note the loyalty this subscription shows.

ERRATA

On page 132 of the November Journal, the illustration in the first column is inverted. In the next column "Position A" is the circle to the left side and "Position B" is the position to the right side. In redrawing these illustrations the key was omitted.

On page 164 of the November issue, in the second column, the article by Dr. Hulett, "Admission Department," should read. "Administration Department."

A GOOD MOVE

F. E. Jorris, Secretary of the Minnesota Society, recently started ten "Round Robin" letters to the profession in his state, calling their attention to the claims of the Research Institute and the *Osteopathic Magazine* for subscriptions. Such an excellent letter and well directed move should secure results both for the Institute and the Magazine.

A CONVENIENT STATE DIRECTORY

The Wisconsin Association has issued a directory of its membership in one of the most convenient forms we have seen. In addition to the geographical arrangement of its members, it also presents the officers, committees, etc., and other interesting data. Secretaries of state organizations who contemplate issuing directories would do well to get a copy of this as a model. E. J. Elton, Matthews Bldg., Milwaukee, is the secretary.

THE NEW SANITARIUM

The Still-Hildreth Sanitarium, to be opened at Macon, Mo., in March, has sent out announcements to the profession that a part of its stock is open to subscription by the profession. The managers have also sent out a prospectus of the institution which contains statements from Dr. Still and the officers, together with letters of approval from members of the profession throughout the country.

A. G. Hildreth will be President and Physician in Charge; C. E. Still, Vice-President, and H. M. Still, Secretary and Treasurer.

A GOOD RECORD CARD

A. P. Howells of Albany, Oregon, has prepared a series of very complete forms for case records. They consist of four cards, which provide for the general history as well as accurate details of the several phases of examination and laboratory tests, etc. Members interested in making accurate records should correspond with Dr. Howells at the above address.

THE HERALD OF OSTEOPATHY

This lay magazine, which has been conducted for the past seven or eight years by Dr. A. L. Evans, has by him been transferred to Dr. George W. Reid as editor and manager, and F. P. Millard as associate editor. This change was made necessary by the demand of the *Osteopathic Magazine* for all of Dr. Evans's time and attention. The *Herald* is advertised in this issue of the Journal.

NOT AN OSTEOPATHIC PHYSICIAN

A scandalous report from Pittsburg was printed in the *New York Herald* of December 7th regarding an alleged *Doctor* Serrazin of that city, in which it was claimed his women patients were treated nude. A wire to Dr. E. N. Hansen brings the information that Serrazin is not an osteopath and is not licensed in the county. The *Herald* has been asked to correct its misstatement.

### LONDON BRANCH FOR HORN

William H. Horn & Brother, of Philadelphia, manufacturers of surgical appliances, announce that they have opened a branch in London, E. C., England. This firm has in times past advertised in the JOURNAL, and has had exhibit space at our annual meetings.

### A NEW PLANT AT KIRKSVILLE

E. C. Brott and George A. Still announce that they have arranged with the Christian Company of New York to erect a plant which shall manufacture and be the western depot and distributor of the Christian Health Food Products. The name of the corporation is "The American Manufacturing and Therapeutic Supply Company." It is expected that the factory will be constructed at once and be in operation by May.

### PERSONALS

Chas. D. Finley, after an absence from his office of almost a year and a half on account of an injury, has returned to his practice at Atlantic, Iowa.

J. C. Herman has closed his office at Magnetic Springs, Ohio, and for the winter season, as usual, will be at No. 20 Valucia Avenue, Daytona, Fla.

W. H. Eckert will succeed to the practice of Drs. A. G. Hildreth and Florence Notestine, 706 Century Bldg., St. Louis, on January 1st, when the latter will retire from private practice, preparatory to taking charge of the Still-Hildreth Sanatorium for nervous and mental diseases, Macon, Mo.

John B. Buehler, 381 Fifth Avenue, New York, has been disabled for several weeks with a fractured acromion and dislocated humerus, which he sustained on November 5th.

E. D. Warren, recently of Joplin, Mo., has located at Bellingham, Wash., where he proposes to give special attention to the preparation of popular lectures on osteopathy, and preparing publicity matter. Dr. Warren writes that he has had many years' experience as a platform speaker, and he hopes to be of service to the profession along these lines. He may be addressed at Box 229, Bellingham, Wash.

Clifford Howells, recently of Newark, N. J., has located in the Standard Bank of South Africa, Nairobi, British East Africa. Dr. Anna Gerow Howells will continue the practice at 445 Mt. Prospect Avenue, Forest Hill, Newark, N. J.

Mable A. Langley, secretary of the Massachusetts Association, has recently returned from a tour of several months in Europe, and resumes her practice at 483 Beacon Street, Boston.

J. K. Dozier, of 174 Park Street, New Haven, Conn., spent his vacation touring the British Isles. He was accompanied on the trip by Mrs. Dozier.

S. A. Ellis, of Boston, recently gave a lecture, "My African Hunt," illustrated with pictures taken by his party, before the Men's Club of the All Saints' Episcopal Church, Brookline, Mass.

F. C. Jones, member of Faculty of the Pacific College at Los Angeles, suffered severe injuries by being struck by an automobile when alighting from a street car about November first. Although badly injured, he was recovering nicely when last heard from.

### MARRIED

Dr. Margaret Ammerman, of 711 Pacific Avenue, Atlantic City, N. J., to Mr. Preston Louis Hill, of Philadelphia, on November 22d, from her residence. She will continue her practice at the above address.

Dr. Van Wyck Brinkerhoff, Toledo, O., and Miss Florence Salome Vogel, of Oak Harbor, Ohio, November 20th. At home, 2354 Warren Street, Toledo, Ohio.

Dr. W. H. Albright, of Edmonton, Alberta, on November 5th, and Miss Mary Sedurn, of Patrolia, Ontario. They now are at home in a very desirable residence, recently purchased by Dr. Albright, at 27th Street and Stevens Ave., Edmonton, Alberta.

Dr. G. H. Wilson, Guelph, Ont., and Miss Marie A. Dunbar, November 29, 1913.

### BORN

To Dr. and Mrs. P. K. Norman, of Memphis, Tenn., on September 19th, a daughter.

To Dr. and Mrs. L. H. Walker, of Ellenburg, Wash., October 13th, a son.

To Dr. and Mrs. E. Longpre, Kankakee, Ill., on October 28th, a daughter.

To Dr. and Mrs. Wm. T. Traughber, Los Angeles, Cal., October 18th, a son.

To Mr. E. R. and Dr. Margaret Hawk Harrison, Davenport, Iowa, October 20th, a son.

To Dr. and Mrs. M. E. O'Bryan, Columbia, Tenn., September 25th, a son.

### DIED

At his home in Tacoma, Wash., November 10th, Dr. Rodger E. Chase.

At her home in Washington, D. C., on November 30th, the wife of Dr. Chester D. Swope. Dr. Swope, who was for a year or more on the staff of the American School at Kirksville, and has always been active and prominent in his profession, will have the deep sympathy of his many friends.

At her home in McCune, Kansas, on November 2d, Mrs. Martha A. Trabue, mother of Dr. Josephine Trabue, of Pittsburg, Kansas.

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Treat, Clara Leila (P), 637 So. Evergreen Ave., Los Angeles.

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Ray, Chas. Dennis (A), 1st Natl. Bk. Bld., LeMars.

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Northern, Robert J. (A), First National Bank Bldg., Hagerstown.

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Penfold, Margaret (A), Ridgeway.
Smith Willis V. (A), Rich Hill.

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Cramb, Lulu Lynde (A), Fairbury.
MacCracken, F. E. (A), Beatrice.

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Hills, Chas. Whitman (Ac), Masonic Temple, Dover.

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Kitchell, Arthur Ward (A), 72 Elizabeth Ave., Newark.
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Whitesell, Jean (At), 319 Union Ave., Elizabeth.
Wood, Emma Green (Ph), 31 Ridgewood Road, Maplewood.

NEW YORK

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Banning, John W. ((A), 516 Nostrand Ave., Brooklyn.
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Glascock, Harold (A), Masonic Temple, Raleigh.
Joyner, Annie L. (Ph), Scotland Neck.

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Weaver, Charlotte W. (A), Hamilton Bld., Akron.

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Larkins, Fred. B. (A), 215½ S. Main St., Tulsa.
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Wilson, F. H. (DMS), Edwards Bldg., Newberg.

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Crandall, Geo. E. (Ph), 147 E. Chestnut St. Scranton.
Dumiston, E. L. (A), 417 N. 2d St., Harrisburg.
Dufur, J. Ivan (A), Penn Bldg., Philadelphia.
Ellis, Thomas W. (Ph), 5236 Vine St., Philadelphia.
Grimes, Idella (Ph), Franklin Bk. Bld., Philadelphia.
Hart, I. Sylvester (Ph), 1540 N. 15th St., Philadelphia.
Harris, Henry H. (At), 141 Page Ave., Kingston.
Jackson, Mary K. (Ph) 1533 Diamond St., Philadelphia.
Lindsey, E. L. (At), 603 Madison Ave., Scranton.
Kirkham, Chas. L. (A), K. L. & M. Bl., New Castle.
Marriner, Lorenzo C. (Ph), Mint Arcade, Philadelphia.
Shaeffer, Laura (LA), 1524 Chestnut St., Philadelphia.
Scott, Jane (Ph), Mint Arcade, Philadelphia.

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Sanford, C. F. (A), 3 Hyde Blk., Pierre.

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Gooch, Geo. J. (A), 400 W. Cumberland, Knoxville.
Lawrence, W. T. (A), 415 Poplar St., Paris.
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Miller, R. Lee (A), Holston Bk. Bld., Knoxville.

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Bonham, Clyde Laurence (LA), 4332 14th Ave., Seattle.
Howley, Edward (A), Union Bldg., Mt. Vernon.
Lenhart, J. Bartlett (LA), Provident Bldg., Tacoma.
Morris, Sherman G. (A), 1030 Market St., Chehalis,
Morse, Park A. (A), Joshua Green Bldg., Seattle.
Walker, James L. (A), Sunnyside.
Warner, Clara Lathrope (LA), Washington St., Vancouver.

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Taylor, Chas. P. (A), Hawley Blk., Beaver Dam.

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Dormer, Robert (DMS), 28 Victoria Ave., Belleville.
Hillery, W. Arthur (SC), 70 Spodina Ave., Toronto.
White, J. L. (A), Bank of Toronto, Toronto.

## CHANGE OF ADDRESSES

Achorn, Clinton E., from 17 E. 38th Street, to 36 W. 35th Street. New York City.
Ahlquist, O. P., from Newark, N. J., to 604 Congress Street, Portland, Me.
Allen, H. W., from Monroe City, Mo., to de Lendrecie Blk., Fargo, N. D.
Basye, E. E., from New Orleans, La., to 697 S. Kingsley Drive, Los Angeles, Calif.
Beslin, F. P., from 111 Fourth Avenue S. E., to 203 South Arch Street, Aberdeen, S. D.
Brown, A. F., from London Loan Bldg., to 169½ Dundas Street, London, Ontario.
Bruce, A. Miller, from Running Water, to 121 Fifth Avenue W., Mitchell, S. D.
Brunner, M. W., from 36 N. Ninth Street, to 121 S. Ninth Street, Lebanon, Pa.
Burke, Raymond J., from 512 to 231 Oriental Ave., Atlantic City, N. J.
Cheney, Henry S., from Grosse Bldg. to Marsh, Strong Bldg., Los Angeles, Calif.
Child, Julia E., from St. Paul, Minn., to 1613 Hammond Avenue, Superior, Wis.
Clark, John F., from Campbell to Greenville, Texas.
Cobb, G. A., from 536 Proctor Street, to 539 Proctor Street, Port Arthur, Texas.
Cole, Omer C., from 15 Valley Street, to Lewistown Trust Co. Bldg., Lewistown, Pa.
Dandy, H. Agnes, from Fort Morgan, to 2810 Arapahoe Street, Denver, Colo.
Dietz, Phineas, from 27 New Street, to 500 Broad Street, Newark, N. J.
Donnelly, Emma E., from S. Pasadena to 54 S. El Molino Avenue, Pasadena, Calif.
Dowler, A. S., from Chester, Neb., to Panora, Iowa.
Downey, E. C., from Erie to Chanute, Kansas.
Draper, L. L., from Philadelphia, Pa., to Huntington, Long Island, N. Y.
Dugan, R. C., from 126 Vine Street, to 225 East Center Street, Marion, Ohio.
Duglay, H. A., from Bluffton, Ind., to Ross Blk., Barrie, Ontario.
Edwards, James, From DeSoto to Century Bldg., St. Louis, Mo.
Faddis, Council E., from Los Angeles to 8 S. Almansor Street, Alhambra, Calif.
Falk, Mary, from Hudson, N. Y., to 633 Congress Street, Portland, Me.
Finch, Anson Dann, from 2056 N. Tremont Street, to 720 Troost Avenue, Kansas City, Mo.
Galsgie, Edward C., from Jamesburg, N. J., to 1138 W. Court Street, Los Angeles, Calif.
Good, E., from 523 W. Front Street to Manning Bldg., Plainfield, N. J.; also Madison Bldg., Perth Amboy, N. J.
Grainger, Laura L., from 1206 Main Street, to Union Bank Bldg., Columbia, S. C.
Griffin, Caroline I., from New London Conn., to 3734 S. Hope Street, Los Angeles, Calif.
Gripe, Otto H., from Robertson-Blackman Sanitarium to Grand Opera House Bldg., Atlanta, Ga.
Hassell, Nellie, from Uvalde, to Yoakum, Texas.
Holloway, Lucy Prindle, from Cape Charles, to 258 Mistletoe Street, Petersburg, Va.
Hook, Lollie R. & John T., from 2260 S. St. Paul Street, to Empire Bldg., Denver, Colo.
Houseman, Evan G., from Acme Bldg., to B. B. Bldg., Nampa, Idaho.
Howells, Allan P., from Corvallis, to First Savings Bank Bldg., Albany, Oregon.
Huntington, Geo. L., from Long Beach, to 711 Magnolia Avenue, Pasadena, Calif.
Hutchinson, Wm. W., from 1282 W. 23rd Street, to Los Angeles Investment Bldg., Los Angeles, Calif.
Ingram, G. R., from 2924 Groveland Avenue, to 3139 Calumet Avenue, Chicago, Ill.
Jewett, Josephine A., from 2428 Bancroft Way, to Acheson Bldg., Berkeley, Calif.
Kaufer, John C., from New Milford, to 53 Wright Street, Wilkes-Barre, Pa.
Klein, Clifford S., from Colorado Springs, Colo., to Pantages Bldg., San Francisco, Calif.

Larrabee, T. B., from Artesia, N. M., to Webster City, Iowa.

Laughlin, Harry T., from Decatur, Ill., to Great Falls, Mont.

Lee, Minnie R., from Bedford, Pa., to Power Bldg., Helena, Mont.

Link, E. C., from 52 Broad Street, to 87 Broad Street, Stamford, Conn.

McCabe, John A., from Winnipeg, Canada, to Thief River Falls, Minn.

McRoberts, Sarah Ellen, from 5437 Pennsylvania Avenue, to 130 N. Negley Avenue, Pittsburg, Pa.

Manning, Elizabeth May, from Stockton, to 19 Bishop Court, Chicago, Ill.

Miller, D. F., from Havre, to Baylor, Mont.

Miller, R. W., from Santa Barbara, to 1715 Oakland Avenue, Piedmont, Calif.

Ovens, Albert N., from Mason City to Pierik Bldg., Springfield, Ill.

Peck, Eber K. I., from Warner, N. Y., to Empire Bldg., Niagara Falls, Ont.

Prindle, Richard H., from Washington, D. C., to Henderson, N. C.

Ray, E. C., from Hitchcock Bldg., to Stahlman Bldg., Nashville, Tenn., on January 1st.

Rezner, Lurena, from Biggsville, to Lahann Bldg., Monmouth, Ill.

Roberts, D. W., from Equitable Bldg., to Hippee Bldg., Des Moines, Iowa.

Robinson, Lloyd A., from Parsons, Kans., to Jacksonville, Fla.

Rothfuss, Carl W., from University Bldg., to 71 Webb Avenue, Detroit, Mich.

Rusk, Florence T., from Ionia, Mich., to Grand Island, Neb.

Sands, Ord Ledyard, from 17 E. 38th Street, to 37 Madison Avenue, New York.

Schreiner, John S., from Ryus Bldg., to Coyne Bldg., Webb City, Mo.

Schumacher, Erwin L., from New York City, to 5155 Haverford Avenue, Philadelphia, Pa.

Semones, Harry, from Dungannon to Bristol, Va.

Siler, O. A., from Woodard Theatre Bldg., to Warren National Bank Bldg., Warren, Pa.

Slaugh, J. Harry, from Temple Bldg., to 708 N. Second Street, Camden, N. J.

Smith, Charles S., from 247 W. Main Street, to 32 N. Washington Avenue, Battle Creek, Mich.

Smith, W. Arthur, from 229 Berkeley Street, to 313 Huntington Avenue, Boston, Mass.

Stephens, Walter C., from Westfield to Muncie, Ind.

Stevenson, J. F., from Williamsport to 205 West Church Street, Lock Haven, Pa.

Stow, Ella K., from Los Angeles to 906 W. 2nd Street, Glendale, Calif.

Stow, John B., from 111 N. Seventh Street, to Firemen's Bldg., Newark, N. J.

Tarr, Alfred J., from Mineral Wells To Wilson Bldg., Dallas, Texas.

Thompson, Wm. L., from Fond du Lac, to 44 S. Main Street, Oakfield, Wis.

Trask, R. E., from Okmulgee, Okla., to Shively, Calif.

Traughber, Wm. F., from Consolidated Realty Bldg., to Hollingsworth Bldg., Los Angeles, Calif.

Warren, E. D., from Japlin, Mo., to Box 229, Bellingham, Wash.

Warren, Fannie Taybourn, from La Veta, to 2343 E. Evans Street, Denver, Colo.

Weber, Caroline L., from 1248 Goodfellow Avenue, to Century Bldg., St. Louis, Mo.

Williams, Kate G., from 132 Wabash Avenue, to 57 E. Jackson Blvd., Chicago, Ill.

Woodruff, E. V., from Biloxi, Miss., to Franklin, Indiana.

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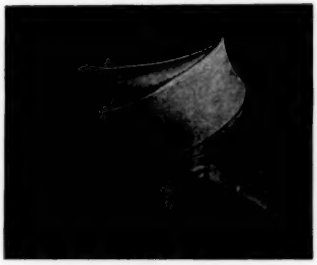

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